

Contributions to the Flora of Madagascar.—Part III. Incompletæ, Monocotyledons, and Filices. By J. G. BAKER, F.R.S., F.L.S.

[Read February 15, 1883.]

IN the present paper the description of the novelties contained in the collections recently received from Madagascar is completed. There are no new genera amongst the Incompletæ or Monocotyledons, except *Cephalophyton*, of which the material is still incomplete. Most of the new species described in the present paper belong to the large widely spread tropical genera. Characteristically Cape types are represented by *Faurea*, *Peddiea*, *Dais*, *Kniphofia*, and *Dipcadi*, one species each, by three *Aristeas*, and four *Aloes*. Of *Obetia*, of which there are either four species or striking varieties in Madagascar in addition to one already described by Weddell, there is only a single additional species, which is common to Mauritius, Bourbon, and Rodriguez. The Bamboo of the forests of Central Madagascar is the same species that is found plentifully in the mountain-woods of the centre of Bourbon. Of the Alismaceous genus *Wisneria* one species is Indian, one Central-African, and a third found in Central Madagascar. We have Asiatic types in *Lophatherum*, of which the two species already known belong to the Himalayas, Japan, China, and the Malay archipelago; and *Eriocaulon fluitans*, which belongs to a well-marked group of species known previously only in Tropical Asia and Australia.

Mr. C. B. Clarke has kindly undertaken the determination of all our Madagascar specimens of *Cyperus*, and has given me, with permission to incorporate it in this paper, a synopsis with synonyms of all the species known in Madagascar and the neighbouring islands.

In this paper I have not attempted to deal with the Asclepiadaceæ or Orchidaceæ, of both of which natural orders there are a considerable number in the collections. In both orders a considerable number of species have been already described from the island, with which the new material will require to be carefully compared.

INCOMPLETEÆ.

CORRIGIOLA PSAMMATROPHOIDES, n. sp.

Annua, glabra, dense cæspitosa, caulibus stramineis erectis multoties dichotome furcatis, foliis parvis distantibus oblanceolatis alternis vel oppositis, floribus copiose umbellatis pedicellis brevissimis, perianthii tubo brevissimo segmentis oblongis viridibus margine albis, fructu globoso-triquetro brunneo glabro.

An erect densely tufted annual herb, with slender straw-coloured stems 3-4 inches long, many times dichotomously forked, with intertangled erecto-patent branches. Leaves few, distant, glabrous, $\frac{1}{4}$ in. long, narrowed from the middle to the base, 1-nerved, usually alternate. Flowers in copious dense umbels in the forks and at the end of the branches, mixed with leaves like those of the stem; pedicels very short. Perianth not more than $\frac{1}{3}$ line long, green, glabrous, with a short tube and five oblong imbricated segments with a distinct white edge. Fruit globose-triquetrous, hard, brown, nearly as long as the perianth.—Central Madagascar, *Baron* 2153! Habit of *Psammatrope*, an endemic Cape genus of *Ficoideæ*. This adds the order *Illecebraceæ* to the Madagascar flora.

CYATHULA (§ POLYSCALIS) SPHÆROCEPHALA, n. sp.

C. caulibus erectis dense pilosis, foliis petiolatis cordato-ovatis acutis utrinque pilosis, floribus albis basi lanosis in glomerulos globosos terminales aggregatis, fertilibus perianthii segmentis 5, exterioribus 2 navicularibus dorso 1-nervatis, 3 interioribus planis lanceolatis rigidulis dorso nervis tribus viridibus percursis, sterilibus lanceolatis apiculatis apice rectis vel glochidiatis.

A tall erect branched perennial herb, with densely pilose angled stems. Leaves in distant pairs; petiole $\frac{1}{2}$ -1 in. long; blade 2-3 in. long, broad ovate, cuspidate, shallowly cordate at the base, moderately firm in texture, dull green on both sides, thinly hairy above, densely villose all over beneath. Flowers in globose heads $\frac{1}{2}$ - $\frac{3}{4}$ in. in diam., sessile in the axil of the topmost pair of leaves. Fertile perianth $\frac{1}{8}$ in. long, the two outer segments navicular, white with a 1-nerved greenish-brown keel; three inner segments flat, lanceolate, firm in texture, with a white border and green centre. Barren flowers as long as the fertile, lanceolate at the base, more or less distinctly cuspidate, with a straight or hooked tip.—Central Madagascar, *Baron* 1135! Allied to *C. globulifera*, Moquin, which is also a Madagascar plant.

POLYGONUM (§ ECHINOCAULON) BRACHYPODUM, n. sp.

P. caule gracili erecto ramoso aculeis retrorsis sæpissime horrido, foliis brevissime petiolatis lanceolatis basi sæpe sagittatis, capitulis paucis parvis globosis terminalibus pedunculis strictis glanduloso-setosis, bracteis latis minutis scariosis, perianthii rubri segmentis 5 obovatis, stylis 2, fructu globoso-lenticulari castaneo nitido.

An erect herb, with slender terete branched stems, armed usually with deflexed prickles, but sometimes without them. Ochreæ loose, brown, scariose, fringed at the margin. Leaves distant, ascending, with a very short petiole and a lanceolate blade 3–4 in. long, with two acute auricles at the base and fringed with bristles along the edge. Heads few or many, $\frac{1}{4}$ in. long, in a lax corymb on stiff slender ascending glanduloso-setose peduncles; broad scariose bracts only about as long as the very short pedicels. Perianth bright red, $\frac{1}{2}$ in. long, with 5 obovate segments. Stamens 5, included. Nut brown, glossy, globose, $\frac{1}{2}$ lin. in diam. Styles two, nearly as long as the ovary; stigmas capitate. Central Madagascar, gathered long ago by Bojer and Hilsenberg, and distributed by them as "*P. sagittatum*" and "*P. hastatum*," both of which names are very appropriate, but already occupied, and now refound by Dr. Parker and Mr. Baron. Native name "Maharamomby." A near ally of the Indian *P. pedunculare*, Wallich.

PEPEROMIA BARONI, n. sp.

Perennis, glabra, caule erecto furcato, foliis verticillatis 3–4nis petiolatis oblongis obtusis firmulis obscure triplinerviis, spicis simplicibus terminalibus breviter pedunculatis, rhachi glabra, bracteis minutis orbicularibus, fructu globoso leviter immerso stigmati sessili centrali.

A perennial, with slender once-forked erect stems half a foot long, glabrous in all its parts. Leaves in 4–5 whorls, the lower in threes, those at the fork and end of the branches in fours; petiole $\frac{1}{8}$ in. long; blade oblong, $\frac{1}{2}$ –1 in. long, obtuse, deltoid at the base, moderately thick and firm in texture, with a distinct midrib and two obscure side nerves ascending from its base. Spikes simple, shortly peduncled, erect, $1\frac{1}{2}$ –2 in. long. Ovaries globose, a little immersed in the axis, with a sessile central stigma.—Central Madagascar, *Baron* 1055! Mr. Baron has lately gathered *P. borbonense*, C. DC., in the province of Imerina (1280), and the forest of Alamazaotra (1539), and *P. subpeltatum*, Willd., in the province of Tanala and woods between Tankay and the east coast (1519).

TAMBOURISSA ROTA, n. sp.

Arborea, glabra, ramulis gracilibus teretibus, foliis oppositis breviter petiolatis oblongis acutis vel subobtusis rigide subcoriaceis utrinque viridibus venulis subtilibus immersis, floribus foemineis solitariis axillaribus globoso-turbinatis glabris breviter pedunculatis, fructu magno globoso carpellis confertis ovoideis.

A small tree, with slender terete branchlets, glabrous in all its parts. Leaves opposite; petiole about $\frac{1}{4}$ in. long; blade 2-3 in. long, $\frac{3}{4}$ - $1\frac{1}{4}$ in. broad at the middle, acute or obtuse, rounded or deltoid at the base, green on both surfaces, the main veins fine and immersed. Female flowers solitary from the axils of the leaves on short peduncles. Perianth thick, hard, black, glabrous, subglobose, $\frac{1}{4}$ in. in diam., flat on the top, with a closed depressed umbilicate centre. Fruit a globe $1\frac{1}{2}$ in. in diam. when dried, brown and hard when unripe, with a black leathery pericarp when ripe, splitting down nearly to the base, the ovoid horny carpels $\frac{1}{3}$ in. long covering all the face of the divisions.—Forests of Central Madagascar, *Parker*! *Baron* 790! 764! 1239! 1361! A very near ally of *T. purpurea*, A. DC. (*Ambora purpurea*, Tulasne, Monog. Monim. t. 26). Native name "Rota."

TAMBOURISSA TRICHOPHYLLA, n. sp.

Arborea, ramulis dense pilosis, foliis oppositis magnis breviter petiolatis oblongo-lanceolatis acutis basi rotundatis interdum prope apicem parce dentatis subcoriaceis facie obscure dorso dense pilosis, floribus foemineis globosis pilosis solitariis breviter pedunculatis.

A tree, with slender terete woody branchlets, clothed towards the top with short dense grey hairs. Leaves opposite; petiole $\frac{1}{4}$ - $\frac{1}{3}$ in. long, stout, pilose; blade 6-8 in. long, $1\frac{1}{2}$ -2 in. broad, acute, rounded at the base, entire or furnished with a few deltoid teeth near the top, moderately firm in texture, dull green and rough with a few short bristly hairs above, pale and densely pilose beneath, especially on the raised midrib and few distant arcuate ascending main veins. Female flowers only seen, solitary, globose, on short peduncles from the axils either of young or full-grown leaves. Perianth $\frac{1}{4}$ in. in diam., filled inside with the numerous ovoid glabrous brown ovaries, which are not at all immersed in the perianth.—Forests of Central Madagascar, *Baron* 1953! 1975 a! A plant labelled "Amboratseroaka" by Dr. Parker is no doubt a nearly allied species. It has oblong obtuse coriaceous leaves 2-3 in. long densely hairy beneath.

CRYPTOCARYA MYRISTICOIDES, n. sp.

C. ramulis flexuosis apice parce pubescentibus, foliis petiolatis oblongo-lanceolatis acutis utrinque viridibus glabris, floribus in paniculas copiosas ramis ferrugineo-tomentosis quam folium multo breviores dispositis, pedicellis brevissimis, perianthii ferrugineo-tomentosi segmentis oblongis quam tubus globosus duplo longioribus.

A tree, with remarkably flexuose terete purplish-brown bloomy copiously lenticellate branchlets, slightly ferrugineo-pubescent towards the top. Leaves alternate; petiole $\frac{1}{2}$ in. long; blade 4-5 in. long, 1-1 $\frac{1}{2}$ in. broad, acute, entire, deltoid or rather rounded at the base, rigidly coriaceous in texture, green and glabrous on both surfaces, the 9-10-jugate main veins fine and little raised. Flowers in copious decomposed axillary and terminal panicles not more than 1-2 in. long, including the short peduncle, with corymbose branchlets, both branches and perianth thinly coated with ferruginous tomentum. Perianth $\frac{1}{8}$ in. long, the six imbricated oblong segments twice as long as the tube. Fruit not seen.—Central Madagascar, *Baron* 1926! Perville's No. 233 is apparently a fourth undescribed species of this genus, differing from the present plant by its longer, more rigid and more glossy leaves and very dense deltoid panicles, of which both the branchlets and flowers are thickly coated with ferruginous tomentum.

CRYPTOCARYA DEALBATA, n. sp.

C. ramulis glabris, foliis parvis petiolatis oblongis obtusis rigide coriaceis facie viridibus glabris dorso glaucescentibus, floribus in paniculas parvas folio æquilongas ramulis ferrugineo-pilosis dispositis pedicellis brevissimis, perianthii ferrugineo-tomentosi segmentis oblongis quam tubus globosus longioribus.

An erect tree, with slender terete glabrous branchlets. Leaves alternate, shortly petioled, 1-1 $\frac{1}{2}$ in. long, rounded at both ends, entire, green and rather glossy above, glaucous and glabrous beneath, with 5-6 pairs of moderately distinct parallel erecto-patent main veins. Panicles small, about as long as the leaves, distinctly peduncled, with a few short corymbose branches, both branchlets and flowers densely ferrugineo-tomentose. Perianth $\frac{1}{2}$ in. long, the six oblong segments twice as long as the globose tube. Fruit not seen.—Woods at Ampasimpotsy, *Baron* 1370!

CRYPTOCARYA CRASSIFOLIA, n. sp.

C. ramulis crassis lenticellatis apice solum ferrugineo-pubescentibus, foliis petiolatis oblongis obtusis crassis rigide coriaceis facie viridibus nitidulis dorso ferrugineo-tomentosis, floribus in paniculas latas decompositas

ramis ferrugineis dispositis pedicellis brevissimis, bracteis minutis deltoideis, perianthii dense ferrugineo-tomentosi segmentis oblongis, fructu nigro glabro depresso-glaboso.

A tree, with stout terete purplish-black branches, with copious large lenticels, pilose only towards the young tops. Leaves alternate, shortly petioled, 3-4 in. long, $1\frac{1}{2}$ -2 in. broad, rounded at both ends, very thick and rigid in texture, glabrous and rather glossy above, ferruginous beneath when young, but only inconspicuously pilose when mature, with 5-6 pairs of conspicuous parallel ascending main veins. Flowers in copious broad peduncled decomposed lateral and terminal panicles about as long as the leaves, both branches and perianth densely ferrugineo-tomentose. Perianth $\frac{1}{3}$ in. long, the six oblong imbricated segments twice as long as the globose tube. Fruit hard, black, depresso-globose, $\frac{1}{2}$ in. in diam.—Central Madagascar, in the forests of the province of Imerina, *Baron* 1305!

OCOTEA (§ MESPILODAPHNE) ACUMINATA, n. sp.

O. ramulis dense pilosis, foliis petiolatis oblongo-lanceolatis acuminatis facie viridibus demum calvatis dorso dense pilosis reticulato-venulosis, racemis paucifloris quam folium multo brevioribus pedicellis flori æquilongis dense pilosis, bracteis parvis lanceolatis, perianthii dense pilosi segmentis oblongis quam tubus turbinatus duplo longioribus.

An erect tree, with slender terete woody densely pilose branchlets. Leaves crowded, alternate; petiole pilose, $\frac{1}{3}$ - $\frac{1}{2}$ in. long; blade 3-4 in. long, $1-1\frac{1}{4}$ in. broad at the middle, very acuminate, deltoid at the base, subcoriaceous, pilose when young on the upper surface, but almost or quite glabrous when mature, densely clothed with soft short drab hairs beneath, the 5-6-jugate very ascending main veins and all the veinlets prominently raised. Flowers in sparse simple or binate racemes about an inch long, peduncle included; axis and erecto-patent pedicels densely pilose, the latter and the brown scariose lanceolate bracts about as long as the flowers. Perianth $\frac{1}{8}$ in. long, densely pilose, the oblong spreading brownish segments twice as long as the turbinate tube. Fruit not seen.—Central Madagascar, *Baron* 1970!

OCOTEA (§ MESPILODAPHNE) TRICHOPHLEBIA, n. sp.

O. ramulis dense pilosis, foliis petiolatis magnis oblongis acutis facie primum parce pilosis demum calvatis dorso præsertim ad venas dense pilosis venulis reticulatis, racemis laxis paucifloris longe pedunculatis basi

sæpe compositis, pedicellis dense pilosis quam flos longioribus, perianthii pilosi tubo hemisphærico segmentis oblongis, fructu globoso in tubum induratum cupulatum nigrum semiimmerso.

An erect tree, with densely pilose terete woody branchlets. Petiole under $\frac{1}{2}$ in. long, densely pilose; blade 4–5 in. long, $1\frac{1}{2}$ – $2\frac{1}{4}$ in. broad at the middle, acuminate, subdeltoid at the base, green on both sides, subcoriaceous when mature, nearly or quite glabrous above, persistently pilose beneath, the veins and veinlets all prominently raised. Flowers in sparse simple or slightly compound racemes much shorter than the leaves, on slender densely pilose erecto-patent peduncles an inch or more long; pedicels erecto-patent, $\frac{1}{8}$ – $\frac{1}{6}$ in. long; bracts minute, lanceolate, deciduous. Perianth under $\frac{1}{8}$ in. long, densely pilose; tube small, hemispherical; segments 5, oblong. Fruit pale brown, globose, $\frac{1}{2}$ in. in diam., half immersed in a black rigid glabrous truncate cupule.—Central Madagascar, in forests of the province of Imerina, *Baron* 1289! 1310! 1776!

FAUREA FORFICULIFLORA, n. sp.—*Loranthus forficuliflora*, *Bojer MSS.*

Arbuscula, ramulis glabris, foliis oblanceolato-oblongis acutis rigidulis nitidis glabris, racemis terminalibus oblongis, pedicellis patulis, bracteis minutissimis, perianthii brunnei tubo cylindrico cite ad basin fisso, segmentis oblongis 3 diu coalitis, staminibus ad faucem uniseriatis, ovario dense albo-villoso, squamulis hypogynis lanceolatis, stylo pollicari.

A small forest tree 10 or 15 feet high, glabrous in all its parts except the ovary. Leaves close, alternate, 4–5 in. long, $\frac{3}{4}$ –1 in. broad, subcoriaceous in texture, green and glabrous on both surfaces, shining above, narrowed from the middle to a short petiole. Flowers in shortly peduncled moderately dense terminal racemes 3–5 in. long; pedicels patent, woody, $\frac{1}{8}$ in. long, with a minute deltoid bract at the base. Perianth brownish, clavate, an inch long, obscurely white-silky, with a slender cylindrical tube which soon slits open down one side, and 4 oblong segments $\frac{1}{6}$ in. long, three of which cohere permanently. Anthers 4, linear, inserted at the base of the perianth-segments, with very short filaments. Ovary small, densely clothed with white silky hairs; style filiform, glabrous, persistent, an inch long.—Forests of the province of Imerina, gathered long ago by Dr. Lyall, and now re-found by Dr. Parker and the Rev. Deans Cowan. There are five other species of the genus now known at the Cape and in

Zambesi-land and Angola (see Welwitsch in Trans. Linn. Soc. xxvii. t. 20).

DAIS GNIDIOIDES, n. sp.

Fruticosa, ramulis villosis, foliis crebris sessilibus alternis lanceolatis parvis rigidis glabris, floribus in glomerulos globosos terminales dense villosos aggregatis, bracteis ovatis vel lanceolatis, perianthii tubo cylindrico villosa, segmentis oblongis parvis brunneis sæpissime 4, antheris prope tubi faucem biseriatis, stylo elongato.

A low shrub, with erect slender woody densely pilose branches. Leaves crowded, alternate, sessile, ascending, lanceolate, acute, $\frac{1}{2}$ – $\frac{5}{8}$ in. long, rigid in texture, green and glabrous on both surfaces, with a distinct midrib and several obscure very ascending side veins. Flowers in dense globose densely villose heads nearly an inch in diameter when the flowers are expanded from the end of the branches; bracts silky on the back, brown, scariose, the outer ovate, $\frac{1}{4}$ in. long, the inner smaller, lanceolate. Perianth with a cylindrical pilose tube $\frac{1}{4}$ in. long, and usually 4 rarely 5 oblong brown segments $\frac{1}{2}$ in. long, silky on the outside. Anthers small, oblong, in two distinct rows at the top of the perianth-tube, nearly sessile. Style simple, reaching above the middle of the perianth-tube; stigma capitate.—Grassy hills of the province of Imerina, discovered long ago by Bojer, and now regathered by Mr. Baron 665! 2061! who has also refound *D. glaucescens*, Decne. (2094!).

PEDDIEA INVOLUCRATA, n. sp.

Arborea, glabra, foliis oblanceolato-oblongis rigidulis utrinque viridibus, umbellis terminalibus multifloris, pedunculo basi bractearum verticillo involucrato, pedicellis quam flos longioribus, perianthii viriduli tubo elongato cylindrico, segmentis 5 parvis patulis lingulatis apice tomentosus, staminibus prope tubi faucem biseriatis, fructu duro globoso.

An erect tree 20 or 40 feet high, with terete woody bright brown branches, glabrous in all its parts. Leaves alternate, 3–4 in. long, $\frac{3}{4}$ –1 in. broad, narrowed to an obtuse tip and downwards gradually to the base, subcoriaceous, green on both surfaces, the veins except the midrib fine and obscure. Umbel at first sessile inside a dense whorl of oblong brown scariose bracts $\frac{1}{2}$ in. long; peduncle finally 2–3 in. long; pedicels under $\frac{1}{2}$ in. long, ebracteate. Perianth with a cylindrical greenish tube $\frac{1}{4}$ in. long and 5 small spreading lingulate obscurely tomentose segments. Stamens in two rows of 5 each near the top of the perianth-tube;

anthers oblong; filaments very short. Fruit globose, hard nearly black, bicarpellary, $\frac{1}{4}$ in. in diam.; style short, entire; stigma capitate.—Woods of the province of Imerina, *Dr. Parker!* *Baron* 1946! There are three species of the genus known before, two at the Cape and one on the mountains of Fernando Po.

LORANTHUS (§ DENDROPHTHOE) RUBRO-VIRIDIS, n. sp.

Glaber, ramulis teretibus rugosis, foliis parvis brevissime petiolatis obovato-oblongis minute cuspidatis rigide coriaceis uninerviis, floribus axillaribus 1-3nis breviter pedicellatis et pedunculatis, bracteola minuta unilaterali, calycis parvi tubo oblongo limbo brevissimo, corollæ tubo cylindrico gracillimo splendide rubro cite ad medium fissio, segmentis 5 oblanceolatis viridibus, antheris minutis oblongis.

A closely branched shrub, glabrous in all its parts, with slender pale drab terete branchlets, very rough with raised lenticels. Leaves $\frac{1}{3}$ - $\frac{1}{2}$ in. long, distinctly petioled, cuneate at the base, rounded and minutely cuspidate at the tip, thick and rigid in texture, green when dried, with a distinct midrib that does not reach the top. Flowers usually in pairs, the erect pedicel longer than the calyx. Bracteole unilateral, very minute. Calyx $\frac{1}{2}$ in. long, with an oblong ovary and very short obscurely toothed collar-like limb. Corolla under an inch long, with a very slender bright red tube and 5 oblanceolate green segments finally $\frac{1}{8}$ in. long. Anthers minute, oblong.—Central Madagascar, *Baron* 2170!

LORANTHUS (§ DENDROPHTHOE) PARKERI, n. sp.

Glaber, ramulis teretibus, foliis oblongis brevissime petiolatis obtusis 1-nerviis rigide coriaceis basi deltoideis, floribus axillaribus sessilibus 2-4nis, bracteola unilaterali, calycis parvi tubo subgloboso, limbo campanulato dentibus deltoideis, corollæ tubo cylindrico rubro cite ad medium fissio, segmentis oblanceolatis viridibus, antheris lineari-oblongis.

A much-branched shrub, glabrous in all its parts, with terete brown branchlets, rough with raised lenticels. Leaves shortly petioled, $1\frac{1}{2}$ -2 in. long, $\frac{3}{4}$ -1 in. broad, very obtuse, deltoid at the base, very thick and rigid in texture, with the midrib faintly visible. Flowers up to four, sessile in the axils of the leaves. Calyx $\frac{1}{2}$ in. long, with a short collar-like limb with 5 deltoid teeth. Corolla an inch long, with a red tube slitting on one side halfway down and 5 oblanceolate green segments $\frac{1}{8}$ in. long. Anthers linear-oblong, $\frac{1}{2}$ in. long.—Forest of Andrangaloaka, *Dr. Parker!* Closely allied to *L. pachyphyllus*, Baker. A plant

from the herbarium of Justice Blackburn, not localized, labelled "*L. filiflorus*, Bojer," is either conspecific with *L. pachyphyllus*, or very near to it. The branchlets are very rough with lenticels, the leaves broader, and the flowers solitary.

LORANTHUS (§ *DENDROPHTHOE*) *MICROLIMBUS*, n. sp.

Glaber, ramulis teretibus, foliis obscure petiolatis obovato-oblongis obtusis basi cuneatis crassis rigide coriaceis deorsum obscure trinervatis, floribus axillaribus glomeratis sessilibus, bracteola ovata acuta unilaterali, calyce parvo oblongo ore obscure dentato, corollæ rubræ tubo cylindrico gracillimo ad medium fisso, segmentis parvis oblanceolatis, antheris minutis oblongis.

A shrub, with slender terete pale brown branches, glabrous in all its parts. Leaves cuneately narrowed to an obscure petiole, 2-3 in. long, 1-1 $\frac{1}{4}$ in. broad, very obtuse, very thick and rigid in texture, brown when dried, with 3 nerves faintly visible towards the base. Flowers 4-8 in a cluster, sessile. Bracteole unilateral, ovate, with a cusp. Calyx green, scarcely $\frac{1}{2}$ in. long. Corolla red, 1-1 $\frac{1}{4}$ in. long, with a very slender tube and 5 oblanceolate segments not more than $\frac{1}{2}$ in. long. Anthers minute, oblong.—Forest of Alamazaotra, *Baron* 1407!

LORANTHUS (§ *DENDROPHTHOE*) *DIPLOCRATER*, n. sp.

Glaber, ramulis teretibus, foliis subpetiolatis obovato-cuneatis crassis rigide coriaceis venis occultis, floribus solitariis axillaribus sessilibus, bracteola campanulata, calycis cylindrici rigidi limbo elongato apice minute dentato, corollæ rubræ tubo cylindrico cite ad medium fisso, segmentis 5 lanceolatis, antheris linearibus.

A much-branched shrub, glabrous in all its parts, with slender terete pale brown branchlets. Leaves mostly opposite, cuneately narrowed to a short indistinct petiole, 1-1 $\frac{1}{4}$ in. long, $\frac{3}{4}$ -1 in. broad, rounded at the top, thick and rigid in texture, brown when dried, the veins quite hidden. Flowers always solitary, sessile in the axils of the leaves. Bracteole calyx-like, campanulate; calyx cylindrical, $\frac{1}{4}$ in. long, rigid in texture, drab, with a long limb minutely toothed at the tip, slit down one side in a late stage. Corolla red, 1 $\frac{1}{4}$ -1 $\frac{1}{2}$ in. long, the 5 lanceolate segments $\frac{1}{8}$ in. long, the tube thicker in the upper half, slit on one side halfway down. Anthers $\frac{1}{8}$ in. long, inserted at the base of the segments.—An-ranou-madion, Imerina province, *Bojer*! Forest of Alamazaotra, *Baron* 1383!

LORANTHUS (§ DENDROPHTHOE) GONOCCLADUS, n. sp.

Glaber, ramis crassis tetragonis, foliis breviter petiolatis oblongis acutis magnis subcoriaceis penninerviis, floribus 3-6nis axillaribus breviter pedicellatis interdum brevissime pedunculatis, calycis tubo oblongo basi bracteola ovata suffulto, limbi dentibus quadratis, corollæ rubræ tubo cylindrico cite ad medium fisso, segmentis 5 lanceolatis, antheris linearibus.

Branches long, straight, stout, dull brown, with two ribs decurrent from the petiole. Petiole $\frac{1}{2}$ in. long; blade 3-4 in. long, $1\frac{1}{2}$ -2 in. broad, deltoid at the base, moderately thick in texture, brownish when dried, quite glabrous, with a distinct midrib and many arcuate ascending indistinct parallel side ribs. Flowers in clusters in the axils of the leaves all down the branch; pedicel $\frac{1}{2}$ in. long. Calyx $\frac{1}{8}$ in. long, with a one-sided persistent bracteole; limb collar-like, with 5 quadrate teeth. Corolla red, an inch long, with 5 ligulate segments $\frac{1}{4}$ in. long and a tube which is soon slit on one side halfway down. Stamens inserted above the base of the segments. Berry oblong, $\frac{1}{4}$ in. long.—Tanala, *Baron* 296! Forest between Tankay and the east coast, *Baron* 1602!

LORANTHUS (§ DENDROPHTHOE) MONOPHLEBIUS, n. sp.

Glaber, ramulis gracilibus teretibus, foliis petiolatis obovato-oblongis obtusis basi cuneatis subcoriaceis uninervatis, floribus axillaribus 3-6 pedicellatis, bracteola ovata unilaterali, calycis tubo oblongo, limbo brevissimo campanulato obscure dentato, corollæ tubo curvato cylindrico cite ad medium fisso, segmentis 5 oblanceolatis, antheris linearibus.

A shrub, glabrous in all its parts, with slender terete drab woody branchlets. Leaves distinctly petioled, 2-2 $\frac{1}{2}$ in. long, an inch broad, very obtuse, deltoid at the base, moderately thick in texture, green and glabrous on both sides, the midrib distinct through the lower half, but the other veins hidden. Flowers up to six from the axils of the leaves all down the branch; pedicels as long as the calyx. Calyx with an oblong tube $\frac{1}{8}$ in. long and a short collar-like obscurely toothed limb. Corolla red, with a curved cylindrical tube an inch long slit on one side halfway down, and 5 oblanceolate segments $\frac{1}{8}$ in. long. Anthers linear, $\frac{1}{8}$ in. long.—Central Madagascar, *Baron* 1931! These new species are all allied to *L. clavatus*, Desr. In the descriptions of *Loranthi* in *Journ. Bot.* 1882, pp. 245 and 267, there are two misprints in the figures. The corolla of *L. Baroni* is $1\frac{1}{4}$ in., and the anthers of *L. pachyphyllus* are $\frac{1}{8}$ in. long.

VISCUM ECHINOCARPUM, n. sp.

V. ramulis tetragonis, foliis sessilibus oblanceolatis obtusis rigide coriaceis venis immersis occultis, floribus paucis axillaribus sessilibus, singulis bracteolis 2 orbicularibus cuspidatis connatis suffultis, fructu parvo oblongo sessili papillis duris globosis rugoso stigmatate subsessili.

Habit very like that of our European *V. album*, copiously closely dichotomously branched. Branches terete, glabrous or finely downy; ultimate branchlets greenish, 4-angled. Leaves in pairs $\frac{3}{4}$ –1 in. apart, 1–1 $\frac{1}{2}$ in. long, $\frac{1}{4}$ – $\frac{1}{3}$ in. broad, glabrous, very obtuse, narrowed gradually from the middle to the base, thick and rigid in texture, dull green on both surfaces, the veins quite hidden. Flowers 3–4, quite sessile in the axils of each leaf all down the branch. Persistent bracteoles forming a small cup at the base of each flower. Fruit ovoid, $\frac{1}{6}$ in. in diam., brown, densely beset with round hard papillæ. Segments of the female flower 4, small, deltoid. Stigma nearly sessile.—Bay of St. Augustine, *Bojer!*

VISCUM MULTICOSTATUM, n. sp.

Glabrum, ramulis angulatis multicostatis, foliis oppositis subpetiolatis oblongis sæpissime acutis rigidis obscure trinervatis utrinque viridibus, floribus ad axillas foliorum paucis dense glomeratis sessilibus, singulis bracteolis 2 orbicularibus cuspidatis connatis suffultis, fructu parvo ovoideo sessili valde rugoso stigmatate subsessili.

Branchlets woody, greenish, glabrous like the rest of the plant, terete downwards, with many fine ribs, angled and deeply sulcate upwards. Leaves in distant pairs, narrowed to an indistinct short channelled petiole, 2–3 in. long, 1–1 $\frac{1}{4}$ in. broad, usually narrowed to an acute point, rarely shorter and obtuse, obscurely triplinnerved in the lower third, thick and rigid in texture, bright green. Flowers 3–6 in dense clusters in the axils of all the leaves, quite sessile, each subtended by a pair of minute persistent connate bracteoles. Male flowers $\frac{1}{8}$ – $\frac{1}{6}$ in. long, greenish, with 4 deltoid segments. Fruit (immature) ovoid, pale brown, very rugose, the papillæ round or muriform, wavy and confluent, the style very short.—Woods of the province of Imerina, *Baron 465! 1070!* Forest of Andrangaloaka, *Dr. Parker!* Allied to the Abyssinian *V. tuberculatum*, A. Rich., figured in *Trans. Linn. Soc.* vol. xxix. t. 45.

VISCUM MYRIOPHLEBIUM, n. sp.

Glabrum, ramosissimum, ramulis tetragonis, foliis sessilibus oblongis

vel oblongo-lanceolatis acutis rigide coriaceis venulis verticalibus subtilibus exsculptis percursis, floribus 1-3 axillaribus glomeratis, singulis bracteolis 2 minutis connatis suffultis, fructu parvo globoso lævi pedicellato, stylo producto gracili.

A much-branched shrub, glabrous in all its parts, with slender angled sulcate green woody branchlets. Leaves opposite, 1-1½ in. long, ⅓-½ in. broad at the middle, narrowed gradually to both ends, rigid in texture, dull green on both sides, with very fine vertical anastomosing raised veinlets like *Exocarpus* or *Xylophylla*. Flowers 1-3 in the axils of the leaves, each enclosed in a minute green cupule formed by a pair of connate bracteoles. Ovary small, globose, distinctly pedicellate, tipped by a distinct slender style, with a capitate stigma, the dark brown epicarp wrinkled when dry, but not papillose.—Madagascar, *Pervillé* 719! and a variety with smaller leaves and closer branches from the province of Ambongo, *Pervillé* 616!

VISCUM PENTANTHUM, n. sp.

Glabrum, ramulis teretibus multisulcatis, foliis petiolatis ovatis acuminatis rigide subcoriaceis obscure triplinerviis, floribus in umbellas axillares pedunculatas 4-5-floras basi cupulatas dispositis, pedicellis brevibus, ovario oblongo lævi, sepalis 4 deltoideis.

Branches green, slender, woody, multisulcate. Leaves in opposite pairs, shortly petioled, 2-3 in. long, 1-1¼ in. broad, deltoid at the base, narrowed into a long acute point, moderately firm and thick in texture, with three indistinct nerves from the base. Umbels springing from the axils of all the leaves on a short erecto-patent peduncle, the whole umbel springing from a patellæform cupule formed from two connate bracteoles, not with a cupule to each flower as in the other species. Ovary oblong, shortly pedicellate, surmounted by 4 small deltoid connivent segments. Fruit not seen.—Island of Marossi, Antongil Bay, *Bojer*! A near ally of *V. triflorum*, DC.

EXOCARPUS (§ PHYLLODANTHOS) XYLOPHYLLOIDES, n. sp.—*Xylophylla ensifolia*, *Bojer MSS*.

There can be little doubt, although none of the specimens show either flower or fruit, that a plant of which we have now four sheets at Kew, is a phyllocladioid *Exocarpus* closely allied to the well-known *E. phyllanthoides*, Endl., of Norfolk Island, and a plant from the Malay isles (*E. ceramica*, A. DC. Prod. xiv. 691), founded on a figure of Rumphius. The lower part of

the branch is terete; but it passes at the top into an oblanceolate thick rigid phylloclade half a foot long, $\frac{1}{2}$ – $\frac{3}{4}$ in. broad, narrowed gradually from the middle to the base, with very fine anastomosing vertical veins, the same on both sides, and margined with teeth about $\frac{1}{2}$ in. apart, indented on the anterior side only. From the sides of primary phylloclades branch out others that are quite similar in shape and texture; and sometimes these are branched again. Dr. Meller gathered it in 1862 in dense woods near Mbatomanga, sixty miles south of the capital; and now Mr. Baron has obtained it (1631) from woods between Tankay and the east coast. The plant is so interesting, from both a systematic and a geographical point of view, that it is to be hoped perfect specimens may soon be obtained. The wood of the tree, Mr. Baron says, is extremely hard.

CEPHALOPHYTON PARKERI, *Hook. fil.*

This is a curious new genus of Balanophoreæ with the habit of a compound Sphæria (say *Hypoxyton multiforme*). It was brought home by Dr. Parker, and is used in the island medicinally. As the specimens are few in number and do not show the male flowers, Dr. Parker has sent for fuller material; and when this arrives Sir J. D. Hooker will characterize the genus.

EUPHORBIA (§ ANISOPHYLLUM) TRICHOPHYLLA, n. sp.

Perennis, dense pilosa, caulibus brevibus profunde dichotome ramosis, foliis breviter petiolatis oppositis parvis orbiculari-oblongis basi obliquis, floralibus reliquis conformibus, involucri axillari solitario campanulato breviter pedunculato, appendicibus 5 patulis orbicularibus integris, fructu globoso pendulo glabro, seminibus lævibus, stylis bifidis.

A perennial herb, much branched from the crown of the root, with very slender stems not more than 2–3 in. long, dichotomously branched from low down. Leaves in pairs on very short petioles; blade $\frac{1}{6}$ in. long, entire, broadly rounded at both ends, moderately firm in texture, pale green, densely clothed on both sides with short white woolly hairs. Involucres solitary from the axils of the upper leaves; peduncle rather longer than the green glabrous campanulate tube, which is $\frac{1}{2}$ in. in diam.; appendages 5, orbicular, thick and fleshy, without teeth or horns. Capsule $\frac{1}{2}$ in. in diam., erect, deeply 3-lobed. Seed oblong, smooth.—Central Madagascar, *Baron* 1803! Allied to *E. scordifolia*, Jacq. Ic. t. 476 (*E. tomentosa*, Pers.).

EUPHORBIA (§ TITHYMALUS) ENSIFOLIA, n. sp.

Perennis, erecta, glabra, foliis paucis alternis sessilibus rigidis linearibus, paniculæ laxæ ramulis ascendentibus elongatis parce ramosis nullis umbellatis, foliis floralibus parvis lanceolatis, involucrio parvo glabro campanulato breviter pedunculato appendicibus patulis late quadratis margine minute cuspidatis, fructu erecto globoso glabro, seminibus lævibus oblongis.

An erect perennial herb, with wiry terete stems about 2 ft. long. Proper leaves few, alternate, sessile, linear, acuminate, rigid in texture, $1\frac{1}{2}$ –2 in. long, $\frac{1}{12}$ in. broad. Panicle occupying more than half the length of the stem, with long slightly compound branches, with distant nodes. Floral leaves opposite, lanceolate, acute, $\frac{1}{8}$ – $\frac{1}{6}$ in. long. Involucres solitary, with a campanulate tube $\frac{1}{12}$ in. in diam., a short peduncle and 5 spreading quadrate appendages twice as broad as long, obscurely cuspidate at the corners. Fruit globose, erect, glabrous, $\frac{1}{6}$ in. in diam., with a smooth oblong seed in each cell. Styles simple, $\frac{1}{2}$ lin. long, connate in the lower part.—Central Madagascar, *Baron* 2087! A neighbour of the Mauritian *E. dracunculoides*, Lam., figured in Boissier's 'Icones Euphorb.' t. 91.

EUPHORBIA (§ TITHYMALUS) EMIRNENSIS, n. sp.

Perennis, erecta, glabra, caule gracili, foliis oblanceolatis obtusis univerviis sessilibus, paniculæ amplæ laxæ ramis ascendentibus parce ramosis 5 superioribus umbellatis, foliis floralibus oppositis suborbicularibus, involucrio parvo glabro campanulato breviter pedunculato, appendicibus patulis quadratis margine calcaratis, fructu pendulo globoso glabro, seminibus lævibus oblongis.

A perennial herb, glabrous in all its parts, with slender erect terete green stems. Leaves numerous, ascending, alternate, obtuse, sessile, about an inch long, $\frac{1}{6}$ in. broad, 1-nerved, moderately firm in texture, narrowed gradually from the middle to the base. Panicle lax, erect, nearly a foot long, with several branches below the 5-rayed umbel, the branchlets of which (1–3) are 4–5 in. long. Floral leaves in distant sessile pairs with one involucre each to the upper, orbicular ones, $\frac{1}{4}$ – $\frac{1}{2}$ in. in diam., minutely cuspidate. Involucre 1 lin. in diam., with a very short peduncle and 5 spreading quadrate appendages with a short horn from each corner. Fruit glabrous, orbicular, $\frac{1}{8}$ in. in diam. Styles simple, $\frac{1}{2}$ lin. long. Seed oblong, glaucous, smooth, with a small white fleshy caruncula.—Central Madagascar, *Baron* 1813! Allied to the European *E. virgata*, Wald. & Kit.

EUPHORBIA (§ TITHYMALUS?) ERYTHROXYLOIDES, n. sp.

Fruticosa, glabra, ramulis gracilibus lignosis sub apicem crebre nodulosis, foliis ad apices ramulorum fasciculatis petiolatis ovatis vel oblongis integris membranaceis cuspidatis, involucris ad apices ramorum umbellatis pedunculatis basi foliis 2 obovato-cuneatis stipatis, tubo campanulato, appendicibus 5 crassis erectis rotundatis plus latis quam longis.

A tree, with slender terete flexuose divaricating woody ultimate branchlets, furnished towards the tip with copious crowded raised semilunar scars. Leaves solitary or in small whorls at the tip of the branchlets, on short slender petioles; blade $\frac{1}{2}$ – $1\frac{1}{4}$ in. long, acute, deltoid at the base, thin in texture, green and glabrous on both surfaces, all the veins except the midrib indistinct. Involucres 3–8, in whorls from the tips of the branchlets with the leaves, on erect peduncles $\frac{1}{4}$ – $\frac{1}{3}$ in. long; tube campanulate, 1 lin. in diam., with 5 broad short rounded thick erect entire appendages and two opposite obovate-cuneate membranous glabrous bracts twice as long as itself. Flowers only seen in a young stage.—Wood near Analamazoatra, *Meller*! Central Madagascar, *Baron* 1223! Near Ampasimpotsy, *Baron* 1621! A very curious species, of which specimens in a later stage are required.

UAPACA DENSIFOLIA, n. sp.

Arborea, glabra, foliis confertis brevissime petiolatis oblanceolato-oblongis obtusis subcoriaceis utrinque viridibus subtiliter venulosis, capitulis masculis globosis pedunculatis bracteis 3–4 oblongis obtusis reflexis glabræ suffultis, perianthio piloso dentibus deltoideis, filamentis quam antheræ globosæ quadruplo longioribus.

A tree, with crowded slender branchlets, glabrous in all its parts. Leaves crowded, alternate, ascending; petiole not more than $\frac{1}{8}$ – $\frac{1}{6}$ in. long; blade 1– $1\frac{1}{2}$ in. long, $\frac{5}{8}$ – $\frac{3}{4}$ in. broad above the middle, narrowed gradually from the middle to the base, firm in texture, green and minutely glanduloso-punctate on both sides, the fine distant arcuate ascending main veins anastomosing by arches within the margin. Female flowers and fruit not seen. Male flowers in a globose head $\frac{1}{4}$ in. in diam., on a slender peduncle $\frac{1}{2}$ – $\frac{3}{4}$ in. long, with 3–4 reflexing glabrous bracts $\frac{1}{4}$ in. long at the base. Perianth infundibuliform, minutely toothed, shorter than the filaments. Stamens $\frac{1}{8}$ in. long.—Central Madagascar, *Baron* 1917! Allied to the Zambesi-land *U. nitida*, Müll. Arg.

CROTON (§ ELUTERIA) EMIRNENSIS, n. sp.

Arborea, ramulis dense breviter stellato-pilosis, stipulis setaceis, petiolis

elongatis apice glandulosis 2 nigris peltatis glabris stipitatis præditis, foliis cordato-orbicularibus acutis serratis integris vel breviter palmatim trilobatis facie viridibus punctis minutis stellato-pilosis scabris dorso dense stellato-pilosis penninerviis reticulato-venulosis, racemis laxis elongatis, floribus masculis multis staminibus circiter 12, fœmineis solitariis ovario dense hispido stylis brevibus multipartitis.

A tree, with slender woody branchlets, densely clothed with short drab stellate hairs. Leaves alternate; petiole $1\frac{1}{2}$ –2 in. long, with a pair of deflexed stalked cushion-shaped glands at the top; blade 4–5 in. long and broad, shallowly cordate, irregularly serrated, with 7 veins radiating from the base of the petiole and 3–4 pairs of erecto-patent main branches from the midrib above the base; upper surface green, rough with minute stellate hairy tufts; lower surface covered all over with whitish stellate hairs, the veins and veinlets all raised. Racemes erect, axillary, 5–6 in. long, only the lowest flower female. Male perianth densely pilose. Female calyx $\frac{1}{3}$ in. broad when expanded; sepals ovate; petals oblong, as long as the sepals. Fruit $\frac{1}{2}$ in. long and broad, rough with spreading whitish hairs. Styles short, black, with 9 or 10 divisions.—Central Madagascar, *Baron* 1841! 1854! Allied to *C. muricatus*, Vahl.

CROTON (§ EUCROTON) NITIDULUS, n. sp.

C. ramulis gracillimis lignosis ferrugineo-lepidotis, foliis alternis vel oppositis petiolo brevi apice biglanduloso limbo parvo oblongo integro subobtusobaculo subcoriaceo nitidulo obscure lepidoto-punctato, floribus masculis in racemos angustos elongatos dispositis calyce ferrugineo-lepidoto staminibus paucis, floribus fœmineis solitariis calycis segmentis ovatis parce lepidotis, ovario dense lepidoto, stylis brevibus multipartitis.

A tree, with slender woody branchlets, soon denuded, but densely clothed at first with ferruginous lepidote scales. Leaves alternate or opposite. Stipules deciduous; petioles $\frac{1}{4}$ – $\frac{1}{2}$ in. long, with a pair of stalked cushion-shaped glands at the top; blade $1\frac{1}{2}$ – $2\frac{1}{2}$ in. long, moderately firm in texture, finely penninerved, green on both sides, with only a few indistinct lepidote scales, glossy above. Male flowers in dense elongated axillary racemes, seen in bud only. Calyx globose, densely ferrugineo-lepidote. Female flowers solitary, on a long pedicel. Segments of the female calyx finally $\frac{1}{3}$ in. long, with only a few scattered scales on the outside. Ovary densely ferrugineo-lepidote; styles short, black, glabrous, multifid.—Central Madagascar, *Baron* 1302! 1349! Allied to *C. Argyrocephala*, Baill.

CROTON LUTEO-BRUNNEUS, n. sp.

Arboreus, ramulis pilis brevibus luteo-brunneis dense vestitis, foliis longe petiolatis ovatis integris acutis penninerviis facie tenuiter dorso dense stellato-pilosis, floribus foemineis ignotis, floribus masculis copiosis in racemos laxos elongatos dispositis, bracteis parvis deltoideis, calycis dense pilosi segmentis 3-4 ovatis, petalis abortivis, staminibus circiter 50 quam perianthium brevioribus.

A tree, with terete woody branchlets, densely clothed, as are the petioles, peduncles, pedicels, bracts, and calyx, with short soft yellowish-brown hairs. Leaves alternate; stipules deciduous; petioles $\frac{1}{2}$ - $1\frac{1}{2}$ in. long; blade 3-4 in. long, $1\frac{1}{2}$ - $2\frac{1}{2}$ in. broad, acute, entire, broadly rounded or subcordate at the base, moderately firm in texture, green and thinly pilose above, densely clothed with pale stellate hairs beneath, the 5-6-jugate arcuate ascending main veins raised. Male flowers in copious lax axillary shortly peduncled racemes 2-4 in. long; pedicels as long as the solitary flowers, the lower ones deflexed. Calyx $\frac{1}{8}$ in. long, of 3-4 ovate segments. Petals none. Stamens in a dense globose mass, with filaments about as long as the anthers.—Central Madagascar, *Baron* 1770! Remarkable by the absence of petals in the male flowers.

ACALYPHA BARONI, n. sp.

Fruticosa, ramulis griseo-pubescentibus, stipulis parvis lanceolatis, foliis petiolatis ovatis acutis serratis membranaceis utrinque pubescentibus, floribus masculis ignotis, floribus foemineis in spicas axillares 1-3-floras dispositis, bracteis orbicularibus membranaceis hispidis ovarium haud superantibus, stylis profunde multisectis.

A shrub or small tree, with slender terete branchlets, clothed with dense short grey hairs. Leaves alternate; stipules $\frac{1}{8}$ in. long, lanceolate, scariose; petiole $\frac{1}{2}$ - $\frac{3}{4}$ in. long, slender, densely pubescent; blade 2-3 in. long, $1-1\frac{1}{2}$ in. broad, broadly rounded at the base, acute, inciso-crenate, thin in texture, pilose principally on the ribs above, shortly grey-pubescent all over beneath. Female flowers in short-peduncled spikes from the axils of many leaves; rhachis pubescent. Bracts orbicular, wrapped round the ovary, $\frac{1}{12}$ in. long, minutely hispid. Styles 3, yellowish, $\frac{1}{8}$ in. long, cut into very numerous very slender divisions.—Central Madagascar, *Baron* 1725!

ACALYPHA RADULA, n. sp.

Arborea, ramulis dense breviter pubescentibus, stipulis lanceolatis scariosis, foliis breviter petiolatis lanceolatis basi rotundatis denticulatis

facie obscure viridibus punctis bullatis scaberrimis dorso venulosis griseo-pubescentibus, floribus masculis in spicas graciles cylindricas aggregatis, floribus foemineis paucis alternis spicatis bracteis magnis orbicularibus dense glanduloso-pilosis suffultis, ovario glanduloso-piloso, styli ramis laciniatis, seminibus laevibus.

A tree, with slender woody terete branches densely clothed with short grey pubescence. Leaves alternate; stipules brown, membranous, persistent, $\frac{1}{6}$ in. long; petiole $\frac{1}{4}$ – $\frac{1}{2}$ in. long, densely pubescent; blade 3–4 in. long, $\frac{3}{4}$ –1 in. broad, narrowed gradually from a little above to the base to an acute point, very rough with raised points on the dark green upper surface, densely clothed with short grey pubescence beneath. Male flowers in slender shortly peduncled solitary spikes from the axils of the leaves under an inch long; rhachis and perianth pilose. Female flowers 3–4 in a spaced-out spike from the axils of the leaves. Bracts 1-flowered, orbicular, $\frac{1}{4}$ – $\frac{1}{3}$ in. long, densely beset on the edge and back with glandular hairs. Fruit $\frac{1}{8}$ in. in diam., glanduloso-pilose. Seed ovoid, smooth, mottled, $\frac{1}{12}$ in. long.—Central Madagascar, *Baron* 1818!

ACALYPHA LYALLII, n. sp.

Herbacea, perennis, glabra, stipulis caducis, foliis breviter petiolatis magnis oblongis acutis conspicue serratis utrinque viridibus glabris, spicis unisexualibus, floribus masculis in spicas cylindricas axillares dispositis, floribus foemineis in spicas axillares laxas pedunculatas 1–4-floris dispositis, bracteis unifloris foliaceis 3–4plo plus latis quam longis glabris dentatis, stylis profunde multipartitis.

Apparently a perennial herb, glabrous in all its parts except the youngest branchlets and peduncles, which are shortly pubescent. Leaves distant, alternate, ascending; petiole $\frac{1}{4}$ – $\frac{1}{3}$ in. long; blade 4–6 in. long, $1\frac{1}{2}$ –2 in. broad, acuminate, conspicuously inciso-crenate, narrowed from the middle to a slightly rounded base, membranous in texture, bright green and glabrous on both surfaces. Male spikes about an inch long, on peduncles from the axils of the lower leaves. Female flowers in short-peduncled spikes from the axils of the upper leaves; bract foliaceous, glabrous, $\frac{1}{4}$ in. long, toothed on the upper edge, completely wrapped round the ovary, above $\frac{1}{2}$ in. broad when unfolded. Ovary lepidote, globose, $\frac{1}{8}$ in. long. Styles $\frac{1}{4}$ in. long, cut into very numerous fine divisions.—Central Madagascar, *Dr. Lyall*!

MACARANGA (§ *EUMACARANGA*) *ECHINOCARPA*, n. sp.

Arborea, glabra, foliis brevissime petiolatis oblanceolatis obtusis vel

subacutis rigide coriaceis integris utrinque viridibus subtus reticulato-venulosis, floribus masculis ignotis, floribus foemineis in cymas copiosas axillares pedunculatas paucifloras dispositis, perianthii parvi segmentis ovatis, ovario globoso glabro dense echinato stylo persistente hispido fructui æquilongo coronato.

A tree, glabrous in all its parts, with slender terete woody branchlets. Leaves crowded, alternate, ascending; petiole $\frac{1}{4}$ in. long; blade 2–3 in. long, about $\frac{1}{2}$ in. broad, narrowed gradually from the middle to the base, quite entire, firm in texture, green on both surfaces, paler beneath, the 7–8-jugate arcuate ascending main veinlets and copious intermediate areolæ all distinctly visible. Female flowers one or few on copious ascending slender glabrous lateral peduncles and distinctly pedicellate. Perianth glabrous, subcoriaceous, $\frac{1}{2}$ in. long. Ovary globose, $\frac{1}{4}$ in. in diam. in the fruiting stage, when it slits down one side from top to bottom, densely beset with brown coriaceous bristles half as long as itself and crowned with 1 rarely 2 cylindrical hispid persistent filiform entire styles. Seed 1, globose, black, glabrous.—Central Madagascar, *Baron* 451! 1779!

MACARANGA ALNIFOLIA, n. sp.

Arborea, glabra, foliis oblongis acutis rigide subcoriaceis utrinque viridibus glabris venis primariis 10–12-jugis erecto-patentibus exsculptis, floribus foemineis ignotis, floribus masculis in glomerulos globosos paniculatos dispositis, perianthii glabri campanulati segmentis ovatis, staminibus paucis.

A tree, with terete woody branchlets, glabrous in all its parts. Leaves alternate; petiole 1–1 $\frac{1}{2}$ in. long; blade 4–5 in. long, 2 in. broad at the middle, quite entire, acute, not acuminate, deltoid at the base, moderately firm in texture, green and quite glabrous on both surfaces, the 10–12-jugate erecto-patent main veins only raised beneath. Male flowers in copious peduncled axillary panicles longer than the petioles, arranged in dense globose clusters, but seen only in the bud-stage. Perianth globose, glabrous.—Central Madagascar, *Baron* 1404! This and the two succeeding species, so far as can be judged from the material, fall in beside *M. boutonoides* and *obovata*; but female flowers are needed to settle their position definitively. *M. cupularis*, Müll. Arg. in DC. Prod. xv. 2, p. 1008, of which the original is at Kew, is identical with a plant distributed by Bojer under the name of *M. ciliata* from Johanna island.

MACARANGA MACROPODA, n. sp.

Arborea, glabra, foliis longe petiolatis oblongis integris acuminatis rigide subcoriaceis utrinque viridibus glabris venis 6-7-jugis ascendentibus, floribus foemineis ignotis, floribus masculis in glomerulos globosos spicatos vel paniculatos dispositis, perianthii glabri campanulati segmentis ovatis, staminibus 6-8 antheris longe exsertis.

A tree, glabrous in all its parts, with slender woody final branchlets. Leaves alternate; petiole $1\frac{1}{2}$ -2 in. long; blade oblong, very acuminate, 3-4 in. long, $1\frac{1}{4}$ - $1\frac{1}{2}$ in. broad at the middle, rounded at the base, moderately firm in texture, green and quite glabrous on both surfaces, the 6-8-jugate very ascending main veins only raised. Male flowers in copious axillary spikes or panicles about as long as the petioles, aggregated in dense globose clusters $\frac{1}{4}$ - $\frac{1}{3}$ in. in diam. Perianth brownish, glabrous, $\frac{1}{2}$ lin. long, cut down nearly to the base into 3-4 ovate segments. Anthers of 4 orbicular pale yellow cells, 4-6 times shorter than the glabrous filaments.—Central Madagascar, *Baron* 1696!

MACARANGA SPHEROPHYLLA, n. sp.

Arborea, ramulis validis dense brunneo-pubescentibus, foliis longe petiolatis orbicularibus denticulatis conspicue cuspidatis crassis coriaceis facie viridibus subcalvatis dorso dense pilosis reticulato-venulosis, floribus foemineis ignotis, masculis in glomerulos globosos paucos paniculatos dispositis, perianthii parvi pilosi segmentis deltoideis, staminibus 6-10 antheris breviter exsertis.

A tree with stout terete woody branchlets, densely coated, like the petioles, with persistent short brown pubescence. Leaves alternate; petioles 2 in. or more long, spreading from the branch at a right angle, inserted at the base of the blade; blade deflexed, 4-5 in. long and broad, with a sudden lanceolate cusp, thick and rigid in texture, dark green and nearly glabrous above when mature, densely clothed with persistent short hairs beneath, the 4-5-jugate erecto-patent main veins and parallel cross bars raised and brown. Male flowers in copious shortly peduncled axillary panicles about as long as the petiole, made up of few globose clusters $\frac{1}{4}$ in. in diam. Rhachis and perianth densely brown-pubescent, the latter campanulate, not above $\frac{1}{4}$ - $\frac{1}{3}$ in. long and broad. Orbicular 4-celled pale-yellow anthers only just exserted from the perianth.—Central Madagascar, *Baron* 1732!

FICUS (§ *UROSTIGMA*) *MARMORATA*, *Bojer inedit.*

Glabra, ramulis gracillimis, stipulis minutis lanceolatis, foliis longe

petiolatis oblongis acutis parvis rigide coriaceis venis subtilibus immersis, receptaculis parvis duris globosis glabris sessilibus vel brevissime pedunculatis basi bracteis 3 minutis orbicularibus suffultis.

A shrub, glabrous in all its parts, with slender subterete branchlets with pale-brown bark. Stipules lanceolate, acute, $\frac{1}{6}$ in. long. Leaves alternate; petiole very slender, $\frac{1}{2}$ – $\frac{3}{4}$ in. long; blade 1–1 $\frac{1}{2}$ in. long., $\frac{1}{2}$ – $\frac{3}{4}$ in. broad at the middle, acutely cuspidate, deltoid or rather rounded at the base, rigid but thin in texture, green on both surfaces, the veins beneath fine, immersed and indistinct, anastomosing in intramarginal arches. Receptacles copious, arising from the leafy branchlets, $\frac{1}{2}$ in. in diam., with a hard shell, subtended at the base by 3 orbicular bracts, generally at the top of a very short peduncle, quite filled up inside by the fruits. Achene subglobose, glossy, pale brown, with about 4 chestnut-brown lanceolate perianth-segments.—Bay of St. Augustine, *Bojer!*

FICUS (§ UROSTIGMA) MELLERI, n. sp.

Glabra, ramulis gracilibus, stipulis parvis lanceolatis, foliis breviter petiolatis oblanceolato-oblongis obtusis basi rotundatis rigide coriaceis venulis faciei inferioris crebris subtilibus exsculptis, receptaculis parvis sessilibus glabris globosis, basi bracteis 3 orbicularibus minutis præditis.

A tree 15 feet high, glabrous in all its parts, with slender branchlets, and dark brown bark. Stipules lanceolate, acute, $\frac{1}{6}$ in. long. Leaves alternate; petiole stout, $\frac{1}{4}$ – $\frac{1}{2}$ in. long.; blade 2–2 $\frac{1}{2}$ in. long, $\frac{3}{4}$ in. broad above the middle, obtuse, shortly rounded at the base, thick and rigid in texture, green on both sides, the close, fine, distinctly raised erecto-patent veins and veinlets connected by an intramarginal nerve. Receptacles copiously produced from the leafy branchlets, sessile, pale brown, $\frac{1}{4}$ in. in diam.; subtended by three small orbicular bracts connate at the base. Achene shining, pale brown, with a filiform style and about 4 lanceolate reddish-brown perianth-segments.—Tranomaro, between Tamatave and Antananarivo, *Dr. Meller!* Central Madagascar, *Baron 515! 1015! Gerrard 31! Lyall 150!* Forest of Alamazaotra, *Baron 1409! 1466!* Fruit edible. Native name "Nonok." A near ally of the Mauritian *F. pyriformis*, Lam.

FICUS (§ UROSTIGMA) SOROCEOIDES, n. sp.

F. ramulis gracillimis hispidis, stipulis minutis lanceolatis, foliis breviter petiolatis oblongis cuspidatis basi rotundatis subcoriaceis utrinque viridibus facie nitidulis dorso punctis elevatis scabris venis patulis exsculptis,

receptaculis parvis globosis pilosis breviter pedunculatis basi minute bracteatis.

A much-branched tree, with very slender branchlets, rough with short ascending bristly hairs. Stipules minute, lanceolate. Leaves contiguous, alternate; petiole $\frac{1}{8}$ in. long; blade 1–1 $\frac{1}{2}$ in. long, $\frac{1}{2}$ in. broad, obtusely cuspidate, broadly rounded at the base, firm and rigid in texture, bright green and glossy above, pale green beneath, rough with raised points, the distinct spreading pale raised 5–6-jugate main veins anastomosing distinctly just within the edge. Receptacles few, green, globose, pilose, produced from the slender leafy branches, shortly peduncled, subtended by 3 minute deltoid bracts at the base.—Central Madagascar, *Baron* 1014!

FICUS (§ UROSTIGMA) LONGIPES, n. sp.

Glabra, ramulis gracillimis, stipulis minutis lanceolatis, foliis longe petiolatis oblongis conspicue cuspidatis modice firmis, venulis primariis 5–6-jugis exsculptis arcuatis, receptaculis parvis globosis glabris pedunculatis, pedunculis medio minute bracteatis.

A tree, glabrous in all its parts, with very slender ultimate branchlets. Stipules acuminate, $\frac{1}{8}$ – $\frac{1}{6}$ in. long. Leaves alternate; petioles very slender, scabrous, $\frac{1}{2}$ – $\frac{3}{4}$ in. long; blade 1 $\frac{1}{2}$ –2 $\frac{1}{2}$ in. long, about an inch broad at the middle, furnished with a conspicuous lanceolate cusp $\frac{1}{4}$ – $\frac{1}{3}$ in. long, deltoid at the base, moderately firm and thick in texture, bright green and glabrous on both surfaces, with 5–6 pairs of arcuate ascending main veins anastomosing just within the edge, the other veinlets fine, immersed, and indistinct. Receptacles produced from the leafy branches, glabrous, globose, firm in texture, $\frac{1}{8}$ in. in diam. Peduncle $\frac{1}{8}$ in. long, with 3 minute bracts at the middle. Achenes whitish, globose, with 3–4 pale lanceolate perianth-segments. Style elongated.—Central Madagascar, *Baron* 1948!

FICUS (§ UROSTIGMA) BRACHYCLADA, n. sp.

F. ramulis gracilibus teretibus hispidis, stipulis parvis lanceolatis, foliis breviter petiolatis oblongo-lanceolatis cuspidatis basi deltoideis subcoriaceis facie scabris dorso dense pilosis venis multis exsculptis, receptaculis globosis parvulis scabris distincte pedunculatis, pedunculis medio bracteis tribus minutis præditis.

A tree, with slender terete branchlets, very rough with short spreading bristles. Stipules lanceolate, $\frac{1}{4}$ in. long. Leaves alternate; petiole about $\frac{1}{2}$ in. long, densely pilose; blade 6–8 in.

long, $1\frac{1}{2}$ –2 in. broad, with a large lanceolate cusp and a few indistinct teeth at the apex, rounded at the base, moderately firm in texture, dark green and rough with short bristly hairs above, pale green and densely pilose beneath, the distant arcuate ascending main veins, which anastomose in arches just within the margin, distinctly raised, and the intermediate veinlets less distinctly. Receptacles 1–3nate, from the slender leafy branches, pale brown, globose, $\frac{1}{3}$ in. in diam., rough with short bristly hairs. Achenes obovoid, pale brown, glossy, with 3–4 lanceolate perianth-segments and a filiform style.—Central Madagascar, *Baron* 1100!

FICUS (§ UROSTIGMA) XIPHOCUSPIS, n. sp.

F. ramulis gracillimis hispidis, stipulis parvis lanceolatis, foliis breviter petiolatis oblanceolatis longe cuspidatis subcoriaceis venis primariis exsculptis, receptaculis globosis parvis sessilibus vel brevissime pedicellatis bracteis minutissimis.

A tree, with very slender branchlets, rough with short ascending bristly hairs. Stipules pale brown, $\frac{1}{8}$ in. long. Leaves alternate; petiole $\frac{1}{4}$ – $\frac{1}{2}$ in. long, very scabrous; blade 3–6 in. long, $\frac{3}{4}$ –1 in. broad, with a lanceolate cusp $\frac{1}{2}$ –1 in. long, rounded at the base, subcoriaceous, glabrous on both surfaces, dark green above, pale green beneath, with 6–9 pairs of arcuate ascending main veins connected by a pair that run up from the base of the midrib just within the margin. Receptacles globose, pale brown, $\frac{1}{4}$ in. in diam., produced from the slender leafy branchlets. Achenes globose, nearly white, with about 4 lanceolate perianth-segments and an elongated style.—Between Tankay and the east coast, *Baron* 1554! 1646!

FICUS (§ UROSTIGMA) CLAOXYLOIDES, n. sp.

F. ramulis gracillimis hispidis, stipulis parvis lanceolatis, foliis breviter petiolatis oblongis conspicue cuspidatis basi deltoideis modice firmis utrinque viridibus glabris venis primariis arcuatis distantibus solum exsculptis, receptaculo parvo glabro globoso breviter pedunculato, pedunculis medio bracteis tribus minutis præditis.

A tree, with slender brown branchlets, very rough with short ascending bristly hairs. Stipules brown, lanceolate, under $\frac{1}{4}$ in. long. Leaves alternate; petiole very short; blade 2–4 in. long, 1– $1\frac{3}{4}$ in. broad, with a distinct lanceolate cusp $\frac{1}{4}$ – $\frac{1}{2}$ in. long at the tip, subcoriaceous in texture, quite glabrous, dark green above, pale green beneath, with few distant ascending pale main

veins, connected by a pair that run up from near the base of the midrib all along just within the margin. Receptacles globose, glabrous, $\frac{1}{4}$ in. in diam., produced from the slender leafy branches on ascending peduncles $\frac{1}{8}$ – $\frac{1}{6}$ in. long, with 3 minute bracts about the middle. Achenes glossy, pale brown. Female perianth with 3–4 lanceolate segments. Style filiform, elongated.—Forests of Central Madagascar, *Baron* 1074! Top of Ifody Mountain, *Baron* 1374! Andrangaloaka, *Dr. Parker*! Native name, "Ki Vozo."

FICUS (§ UROSTIGMA) TRICHOPODA, n. sp.

F. ramulis validis apice pubescentibus, stipulis ovato-lanceolatis, petiolo elongato piloso, foliis magnis ovatis subobtusis rigide coriaceis facie glabris dorso obscure pilosis venis primariis ascendentibus solum exsculptis, receptaculo duro globoso parvo pedunculato basi bracteis 3 orbicularibus suffulto.

A tree, with the ultimate branchlets $\frac{1}{4}$ – $\frac{1}{3}$ in. thick, terete, with pale brown bark, shortly pubescent towards the tip. Stipules about $\frac{1}{2}$ in. long. Leaves alternate; petiole $1\frac{1}{2}$ –2 in. long, shortly densely pubescent; blade half a foot long, 3–4 in. broad, subobtuse, broadly rounded at the base, rigidly coriaceous, glabrous and rather glossy above, pale and obscurely pubescent beneath, with 8–9 pairs of erecto-patent fine main veins which anastomose in arches just within the margin. Receptacles 1–2-nate, on short stout pubescent peduncles, globose, $\frac{1}{4}$ – $\frac{1}{3}$ in. in diam., clasped at the base by 3 orbicular bracts $\frac{1}{2}$ in. in diam. Achene ovoid, with 3–4 pale brown lanceolate perianth-segments and a long style.—Central Madagascar, *Baron* 1655! 1663!

FICUS (§ UROSTIGMA) TRICHOSPHERA, n. sp.

F. ramulis validis apice pubescentibus, stipulis ovatis cuspidatis, petiolo elongato, foliis oblanceolato-oblongis magnis rigide coriaceis subobtusis basi deltoideis vel breviter rotundatis utrinque glabris venis primariis erecto-patentibus exsculptis, receptaculis globosis sessilibus dense pilosis bracteis 3 magnis orbicularibus suffultis.

A tree, with rugose branchlets $\frac{1}{4}$ – $\frac{1}{3}$ in. in diam., pubescent towards the tip. Stipules about $\frac{1}{2}$ in. long, rigid in texture, pilose on the back. Leaves alternate; petiole 1– $1\frac{1}{2}$ in. long; blade 6–8 in. long, $2\frac{1}{2}$ –3 in. broad, rigid in texture, green and glabrous on both surfaces, with 6–8 pairs of erecto-patent raised main veins anastomosing by distinct arches within the margin. Receptacles globose, sessile, $\frac{1}{2}$ in. in diam., densely pilose, furnished at the base with 3 large orbicular bracts. Achene brown, globose,

with 3-4 lanceolate perianth-segments and a filiform style.—Central Madagascar, *Baron* 1682! A near ally of *F. Baroni*.

FICUS (§ UROSTIGMA) BARONI, n. sp.

F. ramulis validis glabris rugosis, stipulis magnis ovatis cuspidatis dorso pilosis, petiolo elongato facie plana canaliculata, foliis magnis oblanceolato-oblongis subobtusis basi deltoideis rigide coriaceis utrinque glabris venis primariis erecto-patentibus exsculptis, receptaculo magno duro sessili globoso, bracteis 3 magnis orbicularibus stipato.

Branchlets $\frac{1}{3}$ in. in diam., with glossy brown bark, rough with many channels. Stipules $\frac{1}{2}$ in. long, rigid in texture. Leaves close, alternate; petiole 1-1 $\frac{1}{2}$ in. long, with a deeply channelled flat face; blade like that of *Prunus Laurocerasus* in size, shape, and texture, 6-8 in. long, 2-3 in. broad, subacute, narrowed very gradually to the base, furnished with 8-9 erecto-patent main ribs, anastomosing by fine intramarginal arches. Receptacles crowded, sessile, depresso-globose, glabrous, coriaceous in texture, $\frac{1}{2}$ in. in diam., the rigid brown basal bracts $\frac{1}{4}$ in. long and broad. Achene pale brown, with 3-4 whitish lanceolate perianth-segments and a filiform style.—Central Madagascar, *Baron* 1683!

FICUS (§ SYCOMORUS) POLYPHLEBIA, n. sp.

F. ramulis gracilibus hispidis, stipulis magnis lanceolatis acuminatis, foliis breviter petiolatis oblanceolato-oblongis subobtusis basi rotundatis modice firmis utrinque glabris venis permultis subtilibus immersis, receptaculis ad ramos crassos efoliatis productis confertis breviter pedunculatis globosis majusculis pilosis.

A much-branched tree, with slender terete pilose ultimate branchlets. Stipules $\frac{1}{2}$ in. long. Leaves alternate, crowded towards the tip of the branchlets; petiole $\frac{1}{4}$ - $\frac{1}{3}$ in. long, stout, densely pilose; blade 3-4 in. long, 1-1 $\frac{1}{2}$ in. broad, subobtuse, rounded at the base, moderately firm in texture, dark green above, pale green beneath, glabrous except the midrib, with 6-8 pairs of slightly raised ascending main veins connected by fine anastomosing veinlets just within the margin and very numerous visible intermediate fine immersed veinlets. Receptacles produced in clusters from the stout leafless old branches on short rugose peduncles, $\frac{1}{2}$ in. in diam., rugose, mamillate at the apex, filled up with the fruits. Achenes shining, globose, dark brown. Style filiform.—Banks of rivers Imerina forest, Tankay and Betsimiaraka, *Baron* 1582!

TREMA (§ SPONIA) GRISEA, n. sp.

Arborea, polygamo-dioica, ramulis dense pubescentibus, foliis oblongo-lanceolatis acuminatis basi inæqualibus subtiliter serratis subcoriaceis facie viridibus scabris dorso albido-tomentosis venulis exsculptis, floribus masculis axillaribus dense glomeratis, pedicellis brevissimis, perianthii segmentis 5 oblongis margine albidis fimbriato-villosis.

A tree, with slender terete woody densely pubescent branchlets. Leaves alternate, distinctly petioled, 2–3 in. long, an inch broad, rounded at the base, cordate on one side, finely regularly serrated, rather firm in texture, dark dull green and obscurely pilose above, whitish and densely tomentose beneath, the very ascending veins raised. Male flowers in dense globose clusters in the axils of the leaves all down the branch; peduncles densely villose. Perianth globose, under 1 lin. in diam.; segments 5, oblong navicular, $\frac{1}{2}$ lin. long, with white densely villose edges. Stamens 5, included, surrounding a densely pilose rudimentary ovary.—Central Madagascar, *Baron 1717!*

OBETIA MORIFOLIA, n. sp.

O. ramulis crassis, foliis cordato-orbicularibus late crenatis facie scabris dorso albido-velutinis integris vel sursum leviter trilobatis, paniculis laxis rhachibus setis pellucidis deflexis parcis horridis, perianthii fœminei segmentis orbicularibus inæqualibus.

A tree, with ultimate branchlets woody, $\frac{1}{4}$ in. in diam., with glabrous brown bark, the leaves crowded at the tip of the branchlets, with large persistent brown ovate membranous stipules and the axillary panicles spreading at right angles from the branch below the leaves. Petioles $1\frac{1}{2}$ –3 in. long, armed with deflexed pellucid bristles; blade orbicular, acute, 4–6 in. long, broad, deeply cordate, strongly crenate, entire or shallowly palmately 3-lobed in the upper half, dark green and scabrous with raised points and a few short bristles above, matted beneath all over with persistent whitish thin velvety tomentum. Female panicles 3–4 in. long, with very slender branches armed with sparse deflexed pellucid bristles. Flowers in small spaced clusters, many sterile. Perianth-segments orbicular, greenish-brown, $\frac{1}{2}$ in. in diam.—Forests of the province of Imerina, gathered long ago by Bojer, and now refound by *Baron 1820!* Bojer's specimen in the Kew collection was seen by Dr. Weddell and marked by him "*O. ficifolia*, Gaudich.;" but he does not mention it in the 'Pro-dromus;' and it seems to be quite distinct specifically from the

Bourbon plant, which has no stinging bristles. Native name "Amiana," common probably to this and the other stinging tree nettles of the island.

OBETIA PINNATIFIDA, n. sp.

O. ramulis crassis, foliis magnis cordato-orbicularibus irregulariter crenatis profunde pinnatifidis segmentis lobatis facie scabris dorso albido-velutinis, paniculis laxis rhachibus setosis, perianthii foeminei segmentis orbicularibus valde accrescentibus.

A tree, with a habit just like that of *O. morifolia*, the branchlets as thick as a man's little finger, the leaves crowded at the top, with large persistent ovate dark brown scariose stipules. Petioles 3-4 in. long, densely armed with deflexed pellucid stinging bristles. Leaves sometimes above a foot broad and nearly as long, deeply cordate at the base, deeply pinnatifid, and the primary segments again deeply lobed, the marginal crenations large and coarse, the upper surface dark green and very rough, the lower matted just as in *O. morifolia* with thin whitish velvety tomentum. Panicles very compound, half a foot or more long, the slender rhachises and short peduncles sparsely armed with deflexed stinging bristles. Flowers in dense spaced clusters. Female perianth of 4 orbicular accrescent greenish-brown segments $\frac{1}{2}$ in. broad. Fruit ovoid, lenticular, greenish, $\frac{1}{2}$ lin. long and broad.—Central Madagascar, *Baron* 1729! 1822!

OBETIA LACINIATA, n. sp.

O. ramulis crassis, foliis profunde bipinnatifidis segmentis angustis profunde crenatis facie scabris dorso dense breviter pilosis, paniculis laxis rhachibus setis pellucidis densis armatis, perianthii masculi globosi segmentis 5 oblongis.

A tree, with exactly the habit of the two other species. Stipules ovate, scariose, persistent, cuspidate, $\frac{1}{2}$ in. long. Petioles about 2 in. long, densely grey-puberulent and densely armed with pellucid stinging bristles. Leaves 5-6 in. long and broad, cut down to a short distance from the midrib and the segments again deeply pinnatifid, acuminate, coarsely serrated, the upper surface dark dull green and scabrous with short bristly hairs, the lower densely pilose, the midrib of the segments densely armed with stinging bristles. Panicle oblong-deltoid, decomposed, half a foot long, the slender rhachises densely armed with bristles. Male perianth orbicular, $\frac{1}{2}$ in. in diam., with 5 oblong greenish segments. Stamens 5, surrounding a rudimentary ovary.—Central

Madagascar, *Baron* 1721! Andrangaloaka, *Dr. Parker*! This comes so near the Betsileo-land *Urera Radula*, Baker in Journ. Linn. Soc. xviii. p. 279, that there is little room for doubt that, although the characteristic female flowers are still unknown, this also is an *Obetia*. The four Madagascar *Obetias* here indicated differ mainly in armature and leaf-cutting, and may possibly prove to be four varieties of one variable species.

URERA OLIGOLOBA, n. sp.

Fruticosa, dioica, ramulis setis pellucidis crebris armatis, foliis magnis longe petiolatis obovatis membranaceis dentatis dimidio superiore lobatis, paniculis axillaribus magnis laxis, floribus fœmineis perianthii segmentis parvis inæqualibus, fructu ovoideo-lenticulari, stigmate magno penicillato, floribus masculis glomeratis perianthii segmentis 5 ovatis.

An erect shrub, the branchlets much more slender than in the *Obetias*, densely armed towards the top with pellucid stinging bristles. Stipules oblong, brown, scariose, $\frac{1}{3}$ in. long. Leaves alternate, not close; petiole $1\frac{1}{2}$ –2 in. long, densely armed with stinging bristles; blade 4–6 in. long, $3\frac{1}{2}$ –4 in. broad, membranous, dark green on both sides, with a few bristles, coarsely dentate, shallowly lobed in the upper half. Panicles of both sexes axillary, lax and ample. Male flowers clustered, green, depresso-globose, 1 lin. in diam., with 5 segments and 5 stamens. Female flowers corymbose, shortly pedicellate, with very small perianth-segments, an obliquely ovoid-lenticular ovary, and a conspicuous brownish sessile penicillate stigma.—Forests of the province of Imerina, *Baron* 1923! *Dr. Parker*!

PILEA MODESTA, n. sp.

Annua, dioica, caule brevi inermi gracillimo simplici, foliis paucijugis petiolatis late ovatis membranaceis grosse inciso-crenatis setis paucis pellucidis ad faciem præditis supremis quaternis reliquis oppositis, floribus fœmineis in cymam unicam densam terminalem sessilem aggregatis, perianthii segmentis parvis oblongis inæqualibus, ovario ovoideo-lenticulari.

Stems very slender, simple, erect, not more than 3–4 in. long, quite without hairs or bristles. Nodes about four, the terminal one bearing 4 sessile or nearly sessile unequal leaves, the others two each on longer petioles. Stipules large, ovate, green, membranous, persistent. Leaves an inch long and nearly as broad, deeply crenate, obtuse, very thin in texture, dark green, with a few pellucid bristles on the upper surface. Female flowers in a

dense sessile terminal cyme, with 4 very short branches. Achene ovate-lenticular, $\frac{1}{2}$ lin. long, the perianth-segments not more than half its length.—Central Madagascar, *Baron* 907! Nearly allied to *P. tetraphylla*, Blume.

PILEA MACRODONTA, n. sp.

Annua, dioica, caule subinermi elongato gracillimo, foliis oppositis longe petiolatis ovatis acuminatis grosse inciso-crenatis membranaceis, floribus utriusque sexus in glomerulos globosos axillares dispositis, perianthii masculi segmentis ovatis cuspidatis, achenio ovoideo-lenticulari piloso.

An annual, with erect simple very slender unarmed stems a foot long. Leaves opposite; stipules persistent, ovate, brown, membranous, $\frac{1}{2}$ in. long; petiole 1–2 in. long, very slender; blade 2–3 in. long, broad, ovate, cuspidate, deeply inciso-crenate, very thin and membranous in texture, dark green, with a very few obscure pellucid bristles. Flowers of both sexes in globose clusters in the axils of many of the leaves. Male flower globose, under 1 lin. in diam., with 4 stamens and 4 ovate cuspidate segments. Achene ovoid or obovoid, lenticular, obscurely pilose, under a line long, its perianth-segments irregular in shape and size, obtuse or cuspidate.—Shaded woods of the province of Imerina, *Baron* 1058! Forest of Andrangaloaka, *Dr. Parker*! A near ally of *P. hypnophila*, Baker.

PILEA LONGIFOLIA, n. sp.

Glabra, perennis, inermis, dioica, caule simplici elongato, foliis subsessilibus lanceolatis acuminatis argute serratis membranaceis, cymis glomeratis axillaribus breviter pedunculatis, perianthii masculi segmentis 4 oblongis, pedicellis flori æquilongis.

A perennial herb, entirely destitute of hairs and stinging bristles, with long simple elongated erect stems. Leaves in distant pairs, nearly sessile, lanceolate, erecto-patent, 4–6 in. long, $\frac{5}{8}$ –1 in. broad at the middle, very acuminate, narrowed to the base, membranous, dark green, with close sharp regular erecto-patent teeth. Male flowers only seen, in small clusters from the axils of the leaves all down the branch on short slender ascending peduncles. Flower globose, 1 lin. in diam., with 4 oblong glabrous segments. Stamens 4, the reduplicate flat filament longer than the oblong anther.—Central Madagascar, *Baron* 1912! A well-marked very distinct species.

MYRICA PHILLYREÆFOLIA, n. sp.

M. ramulis pilosis, foliis petiolatis oblongis vel oblongo-lanceolatis integris vel parce dentatis rigide coriaceis glabris, spicis masculis sessilibus 1-2-nis cylindricis densis quam folium brevioribus, bracteis orbicularibus obtusis ciliatis flori æquilongis, staminibus 4 antheris orbicularibus filamentis productis basi coalitis.

A much-branched shrub or small tree, with slender woody finely pilose branchlets. Leaves crowded, nearly sessile, 1-1½ in. long, about ½ in. broad, obtuse, cuneate at the base, usually entire, rarely with a few obscure teeth, rigid in texture, green on both surfaces, with a reddish midrib and fine arcuate ascending pinnate side veins. Male flowers in copious ascending solitary or geminate dense-flowered sessile spikes from the axils of the leaves, ¾-1 in. long. Bracts brown, ovate, rigid, obtuse, ½ lin. long, ciliated on the edge. Anthers 4, orbicular, bifid both at top and bottom, with slender filaments about as long as the anther, united towards the base. Female flowers and fruit not seen.—Forests of the province of Imerina, *Baron* 1379!

MYRICA BOJERIANA, n. sp.—*M. salicifolia*, *Bojer*, *inedita*, *nec Hochst.*

M. ramulis pilosis, foliis petiolatis lanceolatis integris subcoriaceis utrinque minute lepidotis, spicis in exemplis visis androgynis, bracteis ovatis, staminibus 4, antheris orbicularibus filamentis brevissimis.

A much-branched erect shrub or small tree, with slender woody shortly pilose branchlets. Leaves alternate, moderately close; petiole very short; blade 2-3 in. long, ⅓-½ in. broad at the middle, acute or subacute, narrowed very gradually to the base, rather firm in texture, green above, brownish beneath, with obscure minute lepidote scales. Spikes in the specimens seen solitary, cylindrical, about ½ in. long, sessile, ascending, androgynous, with male flowers below and imperfect female ones above. Bracts ovate, brown, scariose, about ½ lin. long. Stamens 4, with orbicular anthers and very short filaments.—Central Madagascar, *Bojer*! Both these two new species are closely allied to *M. spathulata*, *Mirbel*, of which we have copious specimens from Central Madagascar, gathered by *Bojer*, *Lyall*, *Meller*, and *Baron*. The latter has gathered it lately (1474!) in the forest of *Alamazaotra*, where it forms a tree 30 feet high.

FLORIDÆ.

BURMANNIA MADAGASCARIENSIS, n. sp.

B. caule gracillimo 1-4-floro, foliis 3-4 minutis alternis lanceolatis, floribus cymosis terminalibus sessilibus lateralibus breviter pedicellatis, bracteis minutis lanceolatis, perianthii cærulei trialati obovati tubo cylindrico ovario subæquilongo, limbi segmentis brevibus, exterioribus orbicularibus, interioribus lanceolatis.

Stems filiform, flexuose, 4-5 in. long, with about four alternate sheathing leaves in the lower half, with a small erect lanceolate acute membranous lamina. Flowers cymose, the central flower of the cyme sessile, the side ones on short arcuate ascending pedicels. Perianth blue, $\frac{1}{6}$ in. long, $\frac{1}{6}$ in. in diam. including the three wings, which are nearly truncate at the top, rounded on the outside and narrowed gradually from near the top down to the base; tube cylindrical, about as long as the ovary. Limb very minute, the three outer segments orbicular, the three inner lanceolate. Style as long as the perianth-tube; stigma capitate. Stamens 3, inserted at the top of the perianth-tube just below the large outer segments.—Madagascar, *Gerrard* 101! Central Madagascar, *Baron* 1049! Swampy ground on the east coast, *Baron* 1561! This is doubtless the plant on which Thouars founded his genus *Maburnia*, Nov. Gen. Madag. p. 4; but he describes the stamens as opposite the inner segments of the perianth. It is nearly allied to *B. juncea*, Soland., and *B. cælestis*, D. Don.

HEDYCHIUM FLAVESCENS and H. PEREGRINUM.

From living roots presented to Kew by Dr. Parker two species of *Hedychium* have been raised, one identical with the Indian *H. flavescens*, Carey, and the other a new species, which has been described by my colleague Mr. N. E. Brown in the 'Gardeners' Chronicle' for March 24, 1883 (p. 368), under the name of *H. peregrinum*.

ARISTEA CLADOCARPA, n. sp.

Dense cæspitosa, glabra, foliis basalibus 8-10 linearibus multinervatis, racemo simplici vel composito rhachi applanata nodis 2-3-floris, bracteis minutis ovatis membranaceis, fructu cylindrico.

Densely cæspitose. Leaves rigid in texture, 4-12 in. long, $\frac{1}{8}$ in. broad, tapering to a point, quite flat on the faces, with above twenty close distinct ribs. Stem, including inflorescence,

$\frac{1}{2}$ –1 ft. long, distinctly flattened and winged from the very base, the peduncle furnished with 1–2 sheathing leaves with a short free lamina. Racemes sometimes simple with only a couple of nodes, in luxuriant plants 4–5 in. long, with 1 or 2 short branches and a single terminal node. Nodes 2–3-flowered, sometimes viviparous. Bracts ovate, brownish, membranous, not more than $\frac{1}{12}$ – $\frac{1}{8}$ in. long. Flowers with a pedicel as long as the bract, a clavate ovary $\frac{1}{6}$ in. long, and a limb of blue oblanceolate segments scarcely longer than the ovary. Capsule black, glabrous, $\frac{1}{2}$ in. long, with very numerous small turgid superposed seeds in each cell.—Andrangaloaka, along sides of paths and in more open parts of forest, *Dr. Parker!* (one specimen with a tuft of distichous leaves 4–5 in. long from one of the lower nodes of the raceme). Central Madagascar, *Baron* 480! 1092! 1777! Gathered also by the Rev. Deans Cowan.

ARISTEA ANGUSTIFOLIA, n. sp.

Glabra, dense cæspitosa, foliis basalibus circiter 3 lineari-subulatis rigidis, racemo simplici laxissimo nodis 2–3-floris rhachi compressa haud alata, bracteis parvis ovatis membranaceis, fructu oblongo.

A densely cæspitose perennial herb, glabrous in all its parts, with densely tufted wiry root-fibres 3–4 in. long. Basal leaves about three to a flower-stem, a foot long, not more than $\frac{1}{2}$ line broad, stiffly erect, with both faces rather convex. Peduncle (exclusive of raceme) rather longer than the leaves, slender, subterete, with about 4 sheathing leaves, the lowest with a long free lamina, that of the upper ones very short. Raceme simple, half a foot long, with a slightly compressed slender axis, and 5–6 nodes bearing 2–3 flowers each. Bracts ovate or oblong, quite membranous, $\frac{1}{6}$ – $\frac{1}{4}$ in. long. Ovary oblong, with a very short pedicel, not seen fully developed. Perianth bright blue, $\frac{1}{2}$ in. long. Stamens not half as long as the perianth.—Central Madagascar, *Baron* 1805!

ARISTEA KITCHINGII, n. sp.

Glabra, cæspitosa, foliis basalibus 6–10 rigidis linearibus $1\frac{1}{2}$ –2-pedalibus multinervatis, racemo elongato composito, rhachi tereti, nodis 5–6-floris, bracteis parvis ovatis membranaceis, fructu oblongo pedicellato.

Densely tufted, with copious slender wiry root-fibres. Leaves erect, very rigid in texture, $1\frac{1}{2}$ –2 ft. long, with very numerous close distinct ribs. Peduncle about 2 ft. long below the inflorescence, terete, with about 4 sheathing leaves, the lower with a

long, the upper with a short erect free point. Panicle sometimes above a foot long, with 1-4 short ascending branches with a cluster of flowers at the summit only. Flowers often 5-6 to a node. Bracts brown, membranous, ovate, $\frac{1}{6}$ in. long. Flowers with a small oblong ovary, a bright blue limb $\frac{1}{2}$ in. long with oblong segments $\frac{1}{4}$ in. broad and stamens half as long as the segments. Capsule $\frac{1}{3}$ in. long, rigid in texture, nearly black, with numerous small superposed seeds in each cell.—Ankaratra Mountains, *Kitching*! Central Madagascar, *Baron* 1084! 1731! 1833! Very near *A. madagascariensis*, Baker, from which it differs in its much more robust habit, long leaves, compound inflorescence, and small membranous bracts.

CRINUM (§ STENASTER) FIRMIFOLIUM, n. sp.

C. foliis anguste loratis firmulis tripedalibus margine et facie glabris, scapo modice robusto, umbellis paucifloris, ovario sessili, tubo 5-6-pollicari, limbi segmentis linearibus patulis quam tubus duplo brevioribus, staminibus quam limbus paulo brevioribus.

Leaves narrow lorate, as thick in texture as in any species of the genus, 3 ft. long, $1\frac{1}{2}$ in. broad at the middle, narrowed gradually from the middle to the apex, the veins very close, numerous and immersed. Peduncle moderately stout, under a foot long. Flowers 5-6 in an umbel, sessile, bracteated by two lanceolate spathe-valves $1\frac{1}{2}$ in. long. Perianth-tube 5-6 in. long; segments of the limb linear with recurved edges, $2-2\frac{1}{2}$ in. long, $\frac{1}{4}$ in. broad, spreading widely when fully expanded. Filaments erectopatent, very slender, 2 in. long; anthers $\frac{1}{2}$ in. long.—East coast, in a freshwater stream, near its mouth, *Baron* 1638! A well-marked new species of the *C. asiaticum* group.

CRINUM (§ STENASTER) LIGULATUM, n. sp.

C. foliis anguste loratis 3-4-pedalibus margine et facie glabris crebre nervatis, scapo robusto, umbellis 20-30-floris, ovario cylindrico sessili, perianthii tubo 2-3-pollicari, segmentis lanceolatis quam tubus brevioribus, staminibus quam limbus distincte brevioribus.

Leaves strap-shaped, 3-4 ft. long, 2 in. broad, moderately firm in texture, closely distinctly ribbed, glabrous both on the surfaces and margin. Peduncle stout, about a foot long. Flowers 20-30 in a dense umbel, subtended by two green lanceolate deltoid spathe-valves about 3 in. long. Flowers sessile or very nearly so; ovary cylindrical, $\frac{3}{4}$ -1 in. long; perianth-tube slender, $2\frac{1}{2}$ -3 in. long; segments ascending, linear, $1\frac{1}{2}$ - $2\frac{1}{4}$ in. long, $\frac{1}{6}$ in. broad,

cuspidate at the tip. Filaments not more than two thirds as long as the perianth-segments; anthers linear, $\frac{1}{2}$ in. long.—Central Madagascar, *Baron* 1982! Allied to *O. asiaticum*, L.

DIOSCOREA HETEROPODA, *Baker in Trimen's Journ.* 1882, p. 270.

Female flowers in lax solitary shortly peduncled axillary nearly spicate racemes, finally 3–4 in. long, with a pilose rhachis distinctly winged towards the top, Flowers solitary, erect, with a very short pedicel with a small lanceolate-deltoid bract at the base, a pilose clavate-trigonous ovary $\frac{1}{8}$ in. long, and 6 small ovate perianth-segments. Capsule pendulous, cernuous, shortly pedicellate, obovate-oblong, glabrous, $\frac{3}{4}$ in. long, rounded at both ends, under $\frac{1}{2}$ in. broad. Central Madagascar, *Baron*!

DIOSCOREA TRICHANTHA, n. sp.

D. ramulis gracillimis pilosis, foliis petiolatis simplicibus cordato-ovatis cuspidatis membranaceis obscure pilosis, racemis masculis 2–3nis laxis elongatis, bracteis deltoideo-cuspidatis, floribus parvis pilosis sæpe 2–3nis, racemis foemineis solitariis, floribus singulis, capsula cernua obovato-oblonga glabra.

An herbaceous twiner, with slender finely pilose stems. Petiole an inch or more long; blade 3–4 in. long, conspicuously cordate, with 7 ribs radiating from the tip of the petiole, thin in texture, green and obscurely pilose on both sides. Male racemes shortly peduncled, 2–3 in. long, with densely pilose rhachises, bracts, and flowers; lower flowers in twos or threes; pedicels very short; expanded perianth not more than a line in diameter, greenish; segments oblong; stamens very short. Female flowers solitary, with a pilose clavate-trigonous ovary $\frac{1}{8}$ in. long and 6 small ovate segments. Capsule brown, shining glabrous, cernuous, $\frac{3}{4}$ in. long, $\frac{1}{2}$ in. in diam.—Central Madagascar, *Baron* 677! 723! 806! A near ally of *D. heteropoda*.

ALOE DELTOIDEODONTA, n. sp.

Acaulis, foliis parvis oblongo-lanceolatis dentibus parvis contiguis deltoideis stramineis marginatis, pedunculo elongato simplici vel furcato, racemis laxis elongatis, bracteis oblongo-lanceolatis quam flos duplo brevioribus, pedicellis ascendentibus apice articulatis quam bracteæ paulo longioribus, perianthii segmentis quam tubus cylindricus brevioribus, genitalibus inclusis.

Probably acaulescent or nearly so. Leaves 3–4 in. long, not more than an inch broad, narrowed gradually from the middle or below it to an acute point, with a continuous horny border and crowded stramineous deltoid prickles $\frac{1}{2}$ in. long. Peduncle a

foot or more long, ancipitous towards the base. Racemes finally 6-9 in. long, lax, especially in the lower half; bracts under $\frac{1}{2}$ in. long, white, membranous, with about 5 distinctly spaced brown ribs on the back. Pedicels ascending; lower $\frac{1}{2}$ in. long. Perianth $\frac{7}{8}$ -1 in. long, the ligulate obtuse segments nearly as long as the tube, furnished with 3-5 close green ribs down the back.—Central Madagascar, *Baron* 752! 946! Allied to *A. humilis* and *A. pratensis* of the Cape.

ALOE CAPITATA, n. sp.

Caulescens?, foliis lanceolatis immaculatis dentibus parvis patulis subcontiguis deltoideis stramineis marginatis, pedunculo simplici elongato, racemis capitatis, bracteis parvis oblongo-deltoideis, pedicellis uncialibus et ultra, perianthii segmentis lingulatis tubo cylindrico æquilongis, genitalibus inclusis.

Probably caulescent. Leaves lanceolate, under 2 in. broad, narrowed gradually upwards, margined with spreading stramineous deltoid prickles $\frac{3}{4}$ -1 lin. long, $\frac{1}{4}$ - $\frac{1}{2}$ in. apart. Peduncle simple, under a foot long. Raceme with 30 flowers or more, with an axis not more than 1-1 $\frac{1}{2}$ in. long; bracts white, membranous, $\frac{1}{3}$ in. long, with 2-3 brown ribs down the back; pedicels 1-1 $\frac{1}{4}$ in. long, the upper ascending, a few of the lower shorter and spreading. Perianth under an inch long, the yellow segments furnished with 3 green ribs down the back. Capsule trigonous-cylindrical, about an inch long.—Central Madagascar at Andringitra, *Baron* 897! 1353! Inflorescence like that of the Cape *A. Saponaria*. Of this and the other species notes taken from the living plant are needed to complete the description.

ALOE OLIGOPHYLLA, n. sp.

Longe caulescens, foliis productis 2-4 linearibus acuminatis dentibus concoloribus patulis deltoideis distantibus marginatis, pedunculo elongato simplici, racemo simplici subdenso, bracteis minutis deltoideis, pedicellis ascendentibus fructu globoso æquilongis.

Caudex slender, elongated. Produced leaves not more than 2-4 to a rosette, 1 $\frac{1}{2}$ -2 ft. long, $\frac{1}{2}$ - $\frac{5}{8}$ in. broad, tapering to a point from above the middle, margined by spreading green deltoid prickles $\frac{1}{12}$ - $\frac{1}{8}$ in. long, $\frac{1}{2}$ -1 in. apart. Peduncle slender, 6-8 in. long, simple, two-edged towards the base. Raceme moderately dense, 2-3 in. long; bracts minute, deltoid; pedicels finally $\frac{3}{8}$ - $\frac{1}{2}$ in. long, arcuate, ascending. Flowers not seen. [Fruit globose, $\frac{1}{2}$ in. in diam.—Central Madagascar, *Baron* 1207! Allied to *A.*

tenuior, *A. ciliaris*, and *A. striatula* of the Cape. It may be the undescribed *A. leptocaulon*, Bojer, Hort. Maur. p. 345.

ALOE MACROCLADA, n. sp.

Longe caulescens, foliis magnis lanceolatis margine corneo continuo dentibus parvis deltoideis patulis subcontiguis prædito, pedunculo simplici crasso elongato, racemo densissimo cylindrico sesquipedali, pedicellis brevibus, bracteis magnis oblongis, perianthii tubo subnullo, segmentis lanceolatis, genitalibus exsertis.

Caudex 3 or 4 feet long. Leaves lanceolate, $1\frac{1}{2}$ –2 ft. long, 3–4 in. broad near the base, narrowed gradually to the apex, not spotted, furnished with a continuous stramineous horny border and spreading deltoid stramineous prickles $\frac{1}{12}$ – $\frac{1}{8}$ in. long and broad, $\frac{1}{4}$ – $\frac{1}{2}$ in. apart. Peduncle simple, elongated, terete, nearly an inch thick at the base, $\frac{1}{12}$ in. thick at the bottom of the raceme. Raceme dense, cylindrical, $1\frac{1}{2}$ ft. or more long, $1\frac{1}{2}$ in. in diam. Bracts oblong obtuse, $\frac{1}{3}$ in. long, with several fine ribs down the central third. Pedicels not more than $\frac{1}{8}$ – $\frac{1}{6}$ in. long. Perianth $\frac{5}{8}$ – $\frac{3}{4}$ in. long, cut down nearly to the base into linear-oblong segments with 5–7 green ribs down the back. Stamens and style both shortly exserted.—Top of Angavo, in the province of Imemina, *Baron* 1178! 1656! Allied to *A. vera* and *A. Sahundra*.

KNIPHOFIA PALLIDIFLORA, n. sp.

Glabra, dense cæspitosa, foliis siccis anguste linearibus quam caulis duplo brevioribus, scapo nudo subpedali, racemo sursum denso, bracteis parvis deltoideis vel lanceolatis, pedicellis apice articulatis, perianthii parvi albi infundibularis segmentis oblongis quam tubus triplo brevioribus, genitalibus inclusis.

A densely tufted erect perennial herb, with the lower part of the old leaves splitting up into fibres. Leaves densely tufted, erect, not more than 6–9 in. long, $\frac{1}{2}$ –1 line broad, with not more than 2–3 veins on each side of the distinct midrib, the margin slightly scabrous. Peduncle naked, slender, terete, about a foot long. Raceme dense at the top for 1–2 inches, but lax at the base and with several distant flowerless bracts below it; bracts small, membranous, the lower ones lanceolate, the upper deltoid, $\frac{1}{12}$ – $\frac{1}{6}$ in. long. Pedicels ascending, $\frac{1}{8}$ – $\frac{1}{6}$ in. long, articulated at the apex, so that the flowers fall easily. Perianth white, without any tinge of red, $\frac{1}{3}$ in. long, with 6 brown stripes running down the keel of the segments and the tube. Stamens as long as the perianth, with minute orbicular anthers.—Ankaratra Mountains,

Baron 1990! Gathered also by the Rev. Deans Cowan. Adds this well-known Cape and Abyssinian genus to the flora of the island.

DIPCADI HETEROCUSPE, n. sp.

D. bulbo globoso, foliis 2-3 anguste linearibus glabris, scapo tereti gracili elongato, racemo denso 6-8-floro, pedicellis brevibus ascendentibus, bracteis magnis longe cuspidatis, perianthii viriduli segmentis tubo æquilongis, exterioribus in floribus inferioribus breviter, in floribus superioribus longe caudatis.

Bulb globose, $\frac{1}{2}$ in. in diam., with pale brown membranous outer tunics. Leaves 2-3, contemporary with the flowers, narrow linear, nearly as long as the scape, $\frac{1}{8}$ in. broad, firm in texture, tapering to the point, glabrous on surfaces and edge. Scape slender, terete, glabrous, 1-1 $\frac{1}{2}$ ft. long. Raceme close, 6-9-flowered; pedicels not more than $\frac{1}{2}$ - $\frac{1}{8}$ in. long; bracts $\frac{1}{3}$ - $\frac{1}{2}$ in. long, lanceolate, with a long setaceous cusp. Perianth green, $\frac{1}{2}$ in. long, the setaceous cusps of the outer segments not more than $\frac{1}{2}$ in. long in the lower flowers, but growing gradually longer in the upper ones, and the top flowers sterile, with segments cuspidate nearly or quite down to the base, as in the Angolan *D. comosum*, Welw., figured in Trans. Linn. Soc. n. s. vol. i. pl. 34.—Central Madagascar, *Baron* 697! Adds the genus to the flora of the island. A bulb gathered by Dr. Parker at Andramasina is likely another *Dipcadi*; but the specimen is in fruit. The leaves are $\frac{1}{2}$ in. broad, thinner in texture, the raceme very lax, with flexuose ascending pedicels above an inch long, and the fruit a subglobose capsule above $\frac{1}{2}$ in. in diam., with numerous thin black discoid seeds.

HYACINTHUS CRYPTOPODUS, n. sp.

H. bulbo magno ovoideo, foliis 6-10 synanthiis lanceolatis glabris, scapo brevi, racemo denso oblongo, pedicellis brevissimis, bracteis minutis deltoideis, perianthii oblongi rubro-purpurei segmentis oblongis tubo æquilongis, staminibus biseriatis filamentis brevibus, fructu parvo globoso, seminibus in loculo geminis erectis.

Bulb ovoid, above an inch in diameter, with many thick pale membranous tunics. Leaves 6-10 to a bulb, lanceolate, thin and rather fleshy in texture, tapering to an acute apex, $\frac{1}{3}$ - $\frac{1}{2}$ in. broad, about 4 in. long in the flowering stage, but afterwards growing out to nearly a foot, quite glabrous both on the surface and margin. Peduncle not more than 2 in. long, hidden by the

sheathing bases of the leaves. Raceme dense, oblong, about an inch long; pedicels very short, ascending, not articulated; bracts minute, deltoid. Perianth mauve-purple, $\frac{1}{4}$ in. long, the oblong segments about as long as the tube. Stamens biseriate, inserted high up in the perianth-tube, with short filaments and small oblong anthers. Capsule globose-trigonous, $\frac{1}{6}$ in. long and broad, with a couple of shining black turgid seeds filling up each cell.—Central Madagascar, *Baron* 2164! Allied to the Zambesi-land *H. ledebourioides*, and quite resembling one of the Cape and Tropical-African Scillas of the subgenus *Ledebouria* in general habit. Adds the genus to the Madagascar flora.

CHLOROPHYTUM DECIPIENS, n. sp.

C. fibris radicalibus permultis densis, foliis radicalibus multis anguste linearibus graminoides glabris crebre nervatis, caule gracili simplici subnudo, racemo angusto elongato, pedicellis brevibus ascendentibus medio articulatis inferioribus 2-3nis, bracteis minutis deltoideo-cuspidatis, perianthii segmentis albidis lanceolatis distincte trinervatis, staminibus quam perianthium paulo brevioribus antheris magnis, stylo exserto, fructu parvo ovoideo-oblongo emarginato.

An erect perennial herb, with a very dense tuft of fleshy cylindrical root-fibres. Leaves 6-8 in a basal rosette, grass-like, a foot or more long, $\frac{1}{8}$ - $\frac{1}{6}$ in. broad, closely distinctly ribbed, without any hairs either on the edge or surfaces. Peduncle a foot and a half long exclusive of the raceme, slender, terete, simple, with only two or three very small bract-like leaves. Raceme simple, 4-8 in. long, the lower nodes about an inch apart; bracts fascicled, minute, deltoid; lower pedicels $\frac{1}{8}$ - $\frac{1}{4}$ in. long. Perianth $\frac{1}{3}$ in. long, with 3 separated distinct reddish-brown ribs down the back of each segment. Anthers as long as the glabrous filaments. Style $\frac{1}{3}$ in. long. Capsule obovate-oblong, $\frac{1}{3}$ in. long, acutely angled, finely veined across the greenish valves.—Central Madagascar, *Baron* 2070! Belongs to the *Anthericum*-like section of the genus, near *C. pubiflorum*. Adds this large African genus to the island flora.

IPHIGENIA ROBUSTA, n. sp.

Erecta, glabra, caule robusto pedali vel sesquipedali, foliis alternis linearibus glabris, racemo laxissimo 10-12-floro, pedicellis elongatis strictis ascendentibus basi folio magno bracteatis, fructu oblongo stylis 3 parvis falcatis coronato.

Rootstock not seen. Stem stout, erect, flexuose, 1-1 $\frac{1}{2}$ ft. long,

floriferous in the upper half. Leaves sessile, alternate, 3-4 below the inflorescence, linear, firm in texture, half a foot long, $\frac{1}{4}$ in. broad, distinctly veined, tapering to the point. Flowers 10-12 in a lax deltoid raceme 6-8 in. long, 4-6 in. broad; lower pedicels 2-3 in. long; upper gradually shorter, each bracteated by a reduced leaf at the base. Flowers not seen. Fruit a coriaceous brown oblong loculicidal capsule $\frac{1}{3}$ in. long; seeds brown, semiorbicular, 8-10 in a cell. Styles 3, falcate, persistent, subulate, $\frac{1}{2}$ lin. long.—Central Madagascar, *Baron* 778!

WISNERIA FILIFOLIA, *Hook. fil. Gen. Plant.* iii. 1007.

Aquaticis, foliis elongatis subulatis, pedunculo elongato, floribus in racemum elongatum dispositis, bracteis in cupulam membranaceam connatis, pedicellis quam cupula longioribus, perianthii parvi segmentis exterioribus viridulis ovatis, interioribus petaloideis oblongis vel obovatis, genitalibus inclusis.

A submerged perennial herb with the habit of an *Isoëtes*. Leaves in a dense tuft, subulate, flaccid, sometimes two or three feet long, tapering to a point, dilated into a clasping sheath at the base. Peduncle slender, as long as the leaves, bearing at the top the flowers in a long slender raceme, the males from the upper nodes and the females from the lower, which are 1-2 inches apart; flowers 2-3 to each node, which is sheathed by a truncate membranous collar $\frac{1}{6}$ in. long formed of the connate bracts; pedicels rather longer than the bracts. Female flowers with 3 carpels; and male flowers with 3 stamens. Perianth $\frac{1}{6}$ in. long; 3 outer segments ovate, greenish, persistent; 3 inner white, petaloid, deciduous. Fruit-carpels as long as the persistent perianth-segments.—Central Madagascar, on floating islands of mud in the lakes, *Dr. Parker!* *Baron* 571! A third species of this new genus of Alismaceæ, described by Micheli in the continuation of De Candolle's 'Prodromus,' vol. iii. p. 82. The two other known species are one Indian, the other Central-African.

XYRIS CAPENSIS, *Thunb.?*

Perennis, glabra, dense cæspitosa, foliis paucis rigidulis anguste linearibus, pedunculo elongato ancipiti, spica ovoideo-oblonga bracteis orbicularibus rigidulis castaneis, bracteolis dorso alatis, perianthii fauce pilosa segmentis oblongis quam tubus cylindricus brevioribus, staminibus quam limbus brevioribus, staminodiis nullis, styli ramis elongatis subulatis apice stigmatosis.

Perennial, densely cæspitose, with slender wiry root-fibres. Leaves distichous, the outer unproduced ones lanceolate, casta-

neous; produced leaves about three to a tuft, $\frac{1}{2}$ –1 ft. long, $\frac{1}{12}$ – $\frac{1}{8}$ in. broad, rigid in texture, with about 8 distinct ribs. Peduncle slender, $1\frac{1}{2}$ –2 ft. long, conspicuously two-angled towards the top. Heads ovoid-oblong, $\frac{1}{2}$ – $\frac{3}{4}$ in. long; bracts orbicular, dark brown, rigid in texture, $\frac{1}{6}$ in. long and broad. Perianth-tube cylindrical, $\frac{1}{6}$ in. long; bracteoles as long as the tube, distinctly winged down the back; throat densely pilose; segments oblong. Stamens nearly as long as the limb; anthers oblong-sagittate; filaments short, pilose. Style with 3 branches as long as the stamens. Ovary oblong, acutely angled.—Central Madagascar, *Parker!* *Baron* 568! 1025! *Baron* 443 is a closely allied apparently new species with narrower subterete leaves and oblong and very glossy castaneous bracts; but the specimens are not complete enough to describe it fully. Thunberg's Cape plant will need to be redescribed before it can be clearly individualized.

XYRIS SEMIFUSCATA, *Bojer MSS.*

Perennis, glabra, dense cæspitosa, foliis pluribus parvis anguste linearibus, pedunculo gracillimo elongato sursum ancipiti, capitulo parvo globoso, bracteis oblongis rigidulis nitidis castaneis, bracteolis lanceolatis acute carinatis haud alatis, perianthii segmentis oblongis quam tubus cylindricus brevioribus, antheris deltoideo-sagittatis filamentis brevissimis, staminodiis nullis, styli ramis brevibus applanatis apice cuneatis.

A densely tufted perennial, with very slender wiry root-fibres. Produced leaves about half a dozen to a rosette, 1–2 in. long, $\frac{1}{2}$ lin. broad, with 5–7 distinct ribs. Peduncle very slender, 6–15 in. long, distinctly 2-edged upwards. Heads globose, $\frac{1}{4}$ in. in diam.; bracts densely imbricated, oblong, dark brown, shining, less firm in texture than those of *X. capensis*, $\frac{1}{6}$ in. long. Perianth with a cylindrical tube $\frac{1}{6}$ in. long, clasped by two rigid lanceolate navicular bracteoles, which are acutely keeled, but not winged on the back; outer segment ovate cucullate, deciduous; inner oblong. Anthers deltoid-sagittate, with very short filaments. Style with 3 short flattened branches.—Central Madagascar, *Bojer!* *Lyall* 398! *Parker!* *Baron* 470! 1089! Native name “Sakoerintany.” May be identical with *X. humilis*, Kunth. We have Madagascar examples of *X. platycaulis*, Poir., from Gerrard 53 and Boivin.

ERIOCAULON FLUITANS, n. sp.

E. caule elongato submerso foliis capillaribus patulis densis prædito,

pedunculis dense fasciculatis vagina laxa quam pedunculus 2-4plo brevior præditis, capitulis parvis depresso-globosis, receptaculo glabro, floribus trimeris bracteisque apice parce breviter albo-penicillatis, bracteis oblanceolatis flori æquilongis, perianthii segmentis membranaceis nigricantibus.

Stem slender, floating, submerged, $\frac{1}{2}$ -1 ft. long, beset throughout with close spreading capillary leaves 2-3 in. long. Peduncles a dozen or more in a fascicle at the top of the stem, 3-9 in. long, with a loose cylindrical basal sheath $1\frac{1}{2}$ -2 in. long. Capitula depresso-globose, $\frac{1}{8}$ - $\frac{1}{5}$ in. in diam., the blackish bracts and flowers with only a few very short deciduous white hairs at the tip. Bracts oblanceolate, membranous, as long as the flowers. Flowers all pedicellate; female with 6 segments of similar texture and colour to the bracts, the outer obovate navicular, the inner oblanceolate; fruit globose, deeply 3-lobed, chestnut-brown, glossy. Male flowers with 6 stamens and very short inner segments.—Central Madagascar, floating in the lakes, *Parker*! *Baron* 926! This belongs to a group of which *E. setaceum*, Linn., is the type, of which the three species already known are Indian and Australian. It is one of the water-plants known under the name of "Volondrano."

MESANTHEMUM PLATYPHYLLUM, n. sp.

M. foliis glabris linearibus vel ensiformibus, pedunculo glabro $1\frac{1}{2}$ -2-pedali, vagina semipedali apice libero lanceolato, capitulo depresso-globo, bracteis exterioribus oblongis rigidis 2-3-seriatis interioribus capitulo æquilongis, receptaculo dense piloso, floribus bracteisque apice dense albo-penicillatis, perianthii segmentis olivaceis fœminei exterioribus oblongis interioribus oblanceolatis.

Rootstock stout, perennial, with a tuft of cylindrical root-fibres. Leaves in a dense basal tuft, subcoriaceous, glossy, quite glabrous, 6-9 in. long, $\frac{1}{2}$ -1 in. broad at the base, tapering gradually to the obtuse tip. Peduncle $1\frac{1}{2}$ -2 ft. long, terete, slender, conspicuously ribbed, with a tight glabrous sheath about half a foot long, with a small free lanceolate tip. Capitula depresso-globose, above $\frac{1}{2}$ in. in diam.; involucre of about 3 rows of very obtuse bracts of coriaceous texture, the outer much shorter than the inner, which just equal the flowers. Inner bracts and perianth-segments olive-green, membranous, with a dense tuft of persistent white hairs at the tip. Outer flowers sessile, female, with 3 oblong outer segments and 3 oblanceolate inner ones. Male flowers pedicellate, with 6 stamens. Central Madagascar, *Baron* 1863! Mr.

Baron has also refound (458!) the oldest known species of this genus, *M. pubescens*, Kornicke (*Eriocaulon pubescens*, Lam.); and Dr. Kornicke has lately described a new one (*M. Rutenbergianum*, Kornicke) discovered by Rutenberg.

GLUMIFERÆ.

CYPERUS, *Linn.* (Auctore C. B. CLARKE, hinc ad finem p. 296.)

Subgenus I. PYCREUS. Stylus semper 2fidus. Nux glumæ contrarie compressa.

* *Nucis cellulæ extimæ oblongæ, longitudinaliter nec transversim sitæ.* [In omnibus speciebus *Cyperi*, nisi hujus sectionis, nucis cellulæ extimæ quadrato-hexagonæ, neque elongatæ sunt.]

1. *C. FLAVESCENS*, *Linn. Sp. Pl.* p. 68, nec *Linn. herb. propr.*; nuce obovoidea nigro-castanea, non aut obscure transversim albo-notata.

Var. β . *abyssinica*; culmis sæpe elongatis, nuce conspicue transversim albo-notata.—*C. abyssinicus* (sp.), *Hochst.!*; *Steud. Cyp.* p. 4; *Bæck. in Linnæa*, xxxv. p. 440, non *Oliver.*—*C. flavescens*, *A. Rich. Fl. Abyss.* ii. p. 474.

MADAGASCAR CENTRALIS, *Baron* n. 636.—DISTRIB. Africa a Madera et Abyssinia usque ad Natal. Mentone.

Nux in eadem umbellula plus minus conspicue transversim notata.

2. *C. LANCEOLATUS*, *Poir. Encycl.* vii. p. 245; nuce ellipsoidea compressa brunnescente: *Bæck. in Linnæa*, xxxv. p. 442.—*C. intermedius*, *Steud. in Flora*, 1842, p. 581; *A. Rich. Fl. Abyss.* ii. p. 483 (inter species *Eucyperis* perperam ordinata); *Bæck. in Linnæa*, xxxv. p. 450, var. β excl.—*C. Eragrostis*, *Krauss in Flora*, 1845, p. 754, non *Vahl*.

MADAGASCAR, *Blackburn.*—DISTRIB. Abyssinia.

C. latispicato, *Bæck.*, affinis.

** *Nucis cellulæ extimæ quadrato-hexagonæ.*

3. *C. GLOBOSUS*, *Allioni, Fl. Pedemont. Auctuarium*, p. 49; umbella simplici, 1-pauci-radiata; spiculis admodum compressis; nuce ellipsoidea acuta. *Bæck. in Linnæa*, xxxv. p. 458, non *Bæck. in Flora* (1879), p. 546.—*C. flavidus*, *Vahl, Enum.* ii. p. 324, nec

Retz., nec *Roxb.*, nec *Bojer.*—*C. capillaris*, *Roxb. Fl. Ind. i.* 194; *Bojer, Hort. Maurit.* p. 379.

MAURITIUS, *Sieber n.* 14, *Bojer, Bouton, &c.* SEYCHELLES, *Pervillé, Horne nn.* 212, 213.—DISTRIB. India &c.; ab Africa nondum visus.

Var. β . *stricta*; caule stricto, involucri bracteis longissimis, spiculis sæpe paucifloris.—*C. strictus* (sp.), *Roxb. Fl. Ind. i.* p. 200.

BOURBON, *Balfour.*

Var. γ . *tortuosa*; spiculis curvatis etiamque haud raro tortuosis.—*C. tortuosus* (sp.), *Roxb. Fl. Ind. i.* p. 197.

MAURITIUS, *Pike.*

4. *C. POLYSTACHYUS*, *Rottb. Descr. et Ic.* p. 39, t. 11. fig. 1 (nuce et pistillo excl.); umbellæ radiis simplicibus rarius divisis; spiculis fasciculatis, suberectis, compressis; nuce oblonga, basi conica, apice truncata. *Baker, Fl. Maurit.* p. 408.

MADAGASCAR, *Pervillé n.* 477. MAURITIUS, *Sieber n.* 10, *Blackburn, Bouton, &c.* BOURBON, *Balfour.* RODRIGUEZ, *Balfour.* SEYCHELLES, *Pervillé n.* 90. NOSSIBÉ, *Pervillé n.* 484.

Var. *Hookeriana*; spiculis laxius spicatis, sæpe patulis aut divaricatis, plus minus ferrugineis aut rubescentibus, angustis.—*C. Hookerianus* (sp.), *Arnott MS. in Wight n.* 2055, non *Thwaites.*—*C. pilosus*, *Baker! Fl. Maurit.* p. 413, non *Vahl.*—An *C. minor*, *Steud. Cyp.* p. 4?

MAURITIUS, *Grey, Bouton.*

Var. *ferruginea*, *Bæck. in Linnæa*, xxxv. p. 479; spiculis majoribus, fasciculatis aut spicatis, ferrugineis aut lucide castaneorubris.—*C. ferrugineus* (sp.), *Poir. Encycl.* vii. p. 261; *Baker Fl. Maurit.* p. 408.—*C. globosus*, *Bæck. in Flora* (1879), p. 546, non *Allioni.*

MAURITIUS, *Sieber n.* 5, *Bouton.* BOURBON, *Balfour.*

Var. *Thouarsii*; umbella composita, radiis longiusculis, spiculis similibus iis *Cyp. polystachyi* var. *ferrugineæ.*—*C. Thouarsii* (sp.), *Kunth, Enum.* ii. p. 12; *Bæck. in Linnæa*, xxxv. p. 481.—*C. foliosus*, *Kunth, Enum.* ii. p. 11.

MAURITIUS, *Bojer.*

Var. ? *Baroni*; involucri bracteis cum umbella æquilongis; umbellæ radiis 4–5 usque ad 2 uncias longis, simplicibus 1-spicatis; spicis 4–9-spiculosis, laxissime spicatis; spiculis patulis aut

divaricatis, remotis, usque ad $\frac{2}{3}$ – $\frac{3}{4}$ unciaë longis; glumis subdistantibus castaneo rubris.

MADAGASCAR CENTRALIS, *Baron* n. 489.

Species forsán bona; sed nux omnino similis ei *C. polystachyi*.

5. *C. BOIVINI*, *Bæck. in Linnæa*, xxxv. p. 481; umbellis 3–1-radiatis, subcapitatis; spiculis 3–5 fasciculatis, sanguineo-rubris, compressis, nuce fere ut in *C. polystachyio*.—*C. atropurpureus*, *Bojer MS.*

MADAGASCAR, *Blackburn.* BOURBON, *Balfour.*

Forsán pro varietate *C. polystachyi*, melius habendus.

6. *CYPERUS* (§ *PYCREUS*) *ATRO-BRUNNEUS*, *Baker*, n. sp.

Perennis, glabra, foliis elongatis lineari-subulatis, caule gracili subtereti, umbellis 2–3-radiatis foliis 2 elongatis lineari-subulatis bracteatis, spicis simplicibus sessilibus vel pedunculatis, spiculis 6–8 lanceolatis sessilibus 12–15-floris, glumis ovato-navicularibus obtusis atrobrunneis nitidis arcte imbricatis, fructu lenticulari, styli ramis 2 elongatis.

A tufted perennial, with slender glabrous subterete erect stems above a foot long. Produced leaves one to a stem, with a long sheath and an erect linear-subulate blade more than half a foot long. Umbel of two or three rays, one sessile, the others peduncled, bracteated by two long unequal linear-subulate leaves. Spikelets 6–8 to a ray, lanceolate, sessile, $\frac{1}{3}$ in. long, the side ones spreading or deflexed. Glumes ovate-navicular, a line long, each imbricated over half the next above it, brown-black, glossy, with a scariose pale border and a conspicuous green keel, not otherwise ribbed. Nut finely reticulated. Style with two long branches.—Central Madagascar, *Baron* 2049! Allied to *C. globosus*, All.

7. *C. LANCEUS*, *Thunb. Prod.* p. 18; *Fl. Cap.* i. p. 383; stolonibus crassis; nuce obovoidea cum $\frac{1}{4}$ parte glumæ subæquilonga.—*C. melanopus*, *Bæck.!* in *Flora*, 1879, p. 545.—*C. nitidus*, *Bæck. in Linnæa*, xxxv. p. 461 *partim*, i. e. *plantis et syn. Indicis exclusis*.

MADAGASCAR CENTRALIS, *Parker* n. 12; præsertim in terra Betsileo, *Baron* nn. 7, 832.

8. *C. MUNDTII*, *Kunth, Enum.* ii. p. 17; culmo per $\frac{1}{3}$ – $\frac{2}{3}$ longitudinis a vaginis foliorum intecto; nuce anguste ellipsoidea cum $\frac{1}{2}$ parte glumæ æquilonga.—*C. densifolius*, *Steud.!* *Cyp.* p. 6.—*C. cruentus*, *Baker!* *Fl. Maurit.* p. 408, non *Retz.*—*C. turfusus*, *Salzm. MS.*—*C. reptans*, *Bojer MS.*

MADAGASCAR CENTRALIS, *Baron* nn. 474, 483, *Parker, Grey, &c.*—DISTRIB. *Africæ* sp. propria, a Tangier usque ad Cape Town.

C. distichophyllus, *Steud. Cyp.* p. 11 (*C. Eragrostis*, *A. Rich. Fl. Abyss.* ii. p. 475, non *Vahl*), mihi est *C. Mundtii* forma.

9. *C. TREMULUS*, *Poir. Encycl.* vii. p. 264; umbella decomposita; spiculis fusco-luteis; nuce oblonga, obtusa. *Bæck. in Linnæa*, xxxv. p. 469; *Baker Fl. Maurit.* p. 409 partim.—*C. retusus*, *Nees; Kunth, Enum.* ii. p. 115.

MAURITIUS, *Sieber* n. 7, *Bojer, &c.*

10. *C. HOCHSTETTERI*, *Nees; Krauss in Flora*, 1845, p. 755; umbella composita; spiculis lutescentibus aut plus minus rubescentibus brunneisve; nuce crasse ellipsoidea.—*C. retusus*, *A. Rich. Fl. Abyss.* ii. p. 485, non *Nees*.—*C. patuliflorus*, *Bæck. in Linnæa*, xxxv. p. 473.—*C. flavicomus*, *Benth. Fl. Austral.* vii. p. 261, non *Mich.*—*C. albo-marginatus*, *Steud. Cyp.* p. 10.

Var. β . *russa*; glumis russis (rubro-castaneis), paullo minus remotis.—*C. expansus*, *Bojer, Hort. Maurit.* p. 380, non *Poir.*—*C. tremulus*, *Baker, Fl. Maurit.* p. 409 partim.

MADAGASCAR, *Hilsenberg et Bojer &c.* MAURITIUS, *Grey &c.*

Subgenus II. JUNCELLUS. Stylus semper 2fidus. Nux glumæ parallele (a dorso) compressa.

11. *C. LÆVIGATUS*, *Linn. Mant.* p. 79; foliis brevibus aut longis; spiculis globoso-capitatis; glumis albis aut castaneo-maculatis. *Baker, Fl. Maurit.* p. 407.—*C. mucronatus*, *Rottb. Descr. et Ic.* p. 19, t. 8. fig. 4; *Bojer, Hort. Maurit.* p. 379.

MAURITIUS, *Sieber* n. 15, &c. RODRIGUEZ, *Balfour*.

Var. ? *cæspitosa*; densissime cæspitosa; culmis numerosis, 1–2 uncias longis, intricato-incurvatis, 1-spiculosis.—*C. lævigatus* forma depauperata, *Baker, Fl. Maurit.* p. 407 in notâ.

RODRIGUEZ, *Balfour*.

12. *C. PYGMÆUS*, *Rottb. Descr. et Ic.* p. 20, t. 14. fig. 4, 5; spiculis congestis sæpe curvatis aut tortis; glumis fructiferis biseriatis neque spiraliter sitis, ovatis neque superne sublatis; nuce ellipsoidea aut oblonga utrinque angustata, cellulis extimis parum laxis. *Bojer, Hort. Maurit.* p. 379; *Baker, Fl. Maurit.* p. 407; *Benth. Fl. Austral.* vii. p. 262, notâ excl.; *Bæck. in Linnæa*, xxxv. p. 493, var. β excl.

MAURITIUS, fide *Bojer*. (Ab insulis Mascariensibus in Kew nondum recepta.)

Isolepis Micheliana, Rœm. et Sch. Syst. ii. p. 114, has the glumes attached in a true spire to the top of the spikelet; the distinction between this and *Cyperus pygmæus* is easily seen in the fruit-spikelets. In the young spikelets the upper part of the spikelet is often not developed; in the fruit the notches on the rhachidia can be observed after the nuts have fallen. The nut of *Isolepis Micheliana* has the outer hyaline cells large, thick, quadrate; so that the margin of the nut under the microscope appears surrounded by a glistening, barred edge, a structure common in *Isolepis* &c., but occurring in no *Cyperus*. The nut moreover in *Isolepis Micheliana* is narrowly oblong, suddenly narrowed at the apex.

13. C. ALOPECUROIDES, *Rottb. Descr. et Ic.* p. 38, t. 8. fig. 2; glumis ovatis in dorso planis, subinflatis, in sicco arcte stipatis marginibus incurvatis vix sese integentibus; stylis 2fidis; nuce parva, ellipsoidea, a dorso compressa. *Baker, Fl. Maurit.* p. 409; *Bæck. in Linnæa*, xxxvi. p. 322, var. *a excl.*

SEYCHELLES, *Horne* n. 221.—DISTRIB. Africa, Asia, et Australia Tropicalis.

C. dives, *Delile, Egypt.* v. t. 4. fig. 3, differt glumis a latere compressis, stylo trifido, nuce plane trigona; glumis in sicco arctius imbricatis sæpe aureo-luteis.

Subgenus III. EUCYPERUS. Stylus, nisi (rarissime) casu, 3-fidus. Nux trigona aut triquetra. Spiculæ multifloræ aut plurifloræ.

Sect 1. ARISTATI. Annui, minores, cæspitosi, foliacei. Spiculæ angustæ, densifloræ; rhachidiorum alæ angustæ non solubiles. Glumæ carinatae mucronatæ aut aristatæ. Stamina sæpius 1-2. Nux brunnea, gluma multo brevior.

* *Spiculæ digitatæ.*

14. C. AMABILIS, *Vahl, Enum.* ii. p. 318; umbella simplici, capitata aut composita; glumis subemarginatis, in lateribus obscurius concoloriter 1-nervosis, mucrone brevissime excurrente; nuce obovoidea, truncata, cum $\frac{1}{3}$ parte glumæ æquilonga. *Baker, Fl. Maurit.* p. 411.—*C. oligostachyus*, *C. aureus*, et *C. aurantiacus*,

H. B. K. Nov. Gen. et Sp. i. pp. 204, 205.—*C. lepidus*, *Hochst.*; *Steud. Cyp.* p. 14.

MADAGASCAR, *Pervillé* n. 521, *Gerard* n. 95. NOSSIBÉ, *Pervillé* n. 488. MAYOTTA, *Boivin*.—DISTRIB. Asia, Africa, America Tropicalis.

15. *C. CUSPIDATUS*, *H. B. K. Nov. Gen. et Sp.* i. p. 104; umbella simplici aut capitata; glumis conspicue viridi 3-nerviis, mucrone longius excurrente; nuce anguste obovoidea aut oblonga quam $\frac{1}{2}$ pars glumæ longiore.

MADAGASCAR, Antananarivo, *Pool*.—DISTRIB. Asia, Africa, America Tropicalis.

16. *C. UNCINATUS*, *Poir. Encycl.* vii. p. 247; umbella sæpius congesta; glumis 3-5-nerviis, mucrone plane excurrente; nuce obovoidea obtusa, cum $\frac{1}{2}$ parte glumæ vix æquilonga.—*C. pectinatus*, *Hils. et Bojer in herb. propr., non Vahl*.

MADAGASCAR, *Lyall* n. 84, *Grey, Dupetit Thouars, &c.*

** *Spiculæ spicatæ.*

17. *C. SQUARROSUS*, *Rottb. Descr. et Ic.* p. 25, t. 6. fig. 3; spiculis linearibus; glumis remotis ovato-lanceolatis mucronatis. *Linn. Amœn. Acad.* iv. p. 303, *Sp. Pl.* p. 66, *herb. propr., partim*.—*C. Maderaspatanus*, *Willd. Sp. Pl.* i. p. 278 (*syn. Pluk. excl.*); *Benth. Fl. Austral.* vii. p. 268 *in notâ*.

COMORO, *Johanna, Hildebrandt* n. 1734; *Bouton*.—DISTRIB. Indiæ Orientalis utraque Peninsula.

Sect. 2. COMPRESSI. Annuï, mediocres, foliati. Spiculæ compressæ, densifloræ; rhachidiorum alæ angustæ, non solubiles. Glumæ carinatae, ovato-acutatae. Nux majuscula, triquetra.

18. *C. COMPRESSUS*, *Linn. Sp. Pl.* p. 68, *et herb. propr.*; viridis; umbella simplici, laxa. *Bojer, Hort. Maurit.* p. 389; *Baker, Fl. Maurit.* p. 410; *Saund. & Baker, Refug. Bot.* t. 240.—*C. brachiatum*, *Poir. Encycl.* vii. p. 259.

MADAGASCAR, *Boivin &c.* MAURITIUS, *Sieber* n. 12, *&c.* SEYCHELLES, *Pervillé* n. 91. NOSSIBÉ, *Hildebrandt* n. 2920.—DISTRIB. Asia, Africa, America, in regionibus magis calidis.

Sect. 3. ARENARI. Robusti, foliati. Spiculæ densifloræ; rhachidiorum alæ non solubiles. Filamenta 3, lata. Nux inæqualiter trigona, a dorso sæpe compressa, mediocris, gluma autem multo brevior.

19. *C. MARITIMUS*, *Poir. Encycl.* vii. p. 240; stolonibus elongatis crassiusculis, squamatis; radicibus non lanosis; spicis globosis multispiculis, stramineo-brunneis; spiculis lanceolatis, teretiusculis; nuce cum tertia parte glumæ æquilonga, ellipsoidea, obtusa, pinguiore, a dorso multo compressa obscure trigona, nigro-fusca. *Bœck. in Linnæa*, xxxv. p. 439, non *C. rigidus*, Vahl.

MADAGASCAR, *Pervillé* n. 339 bis.—DISTRIB. In oris maritimis Zanzibariæ, Zambesiæ.

Culmi pedales. Umbella 5 unc. diam. Spicæ $1\frac{1}{2}$ unc. diam.—*Poiret* ex exemplo depauperato descriptionem scripserat.

20. *C. GALEGENSIS*, *C. B. Clarke*, nov. sp.; foliis pluribus, fere 20 unc. longis; umbella simplici, densius contracta; spiculis linearibus, teretiusculis, 20–24-floris, pallidis.

INS. GALEGA, *Bouton*.

Culmus basi lignosus, laciniis (squamarum?) fibrilliformibus subulatis erectis læte brunneis numerosis ornatus, inferne subcompressus, 18 unc. longus, apice trigonus. Folia valida, lenta, in marginibus scabrida, culmum breviter superantia. Involucri bracteæ 4, usque ad 10 unc. longæ, patulæ, angustæ. Umbellæ radii 4–5, longior vix 1 unc. longus. Spicæ breves, 6–10-spiculosæ; rhachis glabra. Spiculæ longæ $\frac{1}{2}$ – $\frac{2}{3}$ unc.; glumæ (etiam fructiferæ) arctius imbricatæ; rhachidiorum alæ non solubiles. Glumæ ovatæ, obtusæ, convexæ, non carinatæ, obscurius 5–7-nerviæ, in lateribus latiuscule estriatæ, pallidæ, obscurius rubro-maculatæ. Stamina 3, breviter exserta; filamenta angustiora. Stylus nuce brevior; rami 3, breviter exserti, rubri. Nux cum $\frac{1}{3}$ – $\frac{1}{2}$ parte glumæ æquilonga, obovoidea, obtusiuscula, trigona, in facie interiore vix concava.—Species quoad spiculas floresque ad *C. latifolium* approximans.

Sect. 4. CONGESTI. Mediocres aut parvi, foliati. Umbella simplex aut congesta. Spiculæ densifloræ, rhachidiorum alæ angustæ, non solubiles. Glumæ obtusæ, in lateribus obscurius nervosæ. Nux trigona, interdum a dorso plus minus compressa, asymmetrica.

21. *C. DUBIUS*, *Rottb. Descr. et Ic.* p. 20, t. 4. fig. 5; radice fibrosa; culmis cæspitosis fasciculatis, basi incrassatis, conspicue

vaginatis; spicis 1-4, globosis, $\frac{1}{3}$ unc. diam., congestis, viridistramineis; nuce subsymmetrice trigona. *Nees in Wight's Contrib.* p. 85 (tab. *Rumph. excl.*); *Baker, Fl. Maurit.* p. 409.—*C. kyllingoides*, *Vahl, Enum.* ii. p. 312.—*C. capitatus*, *Poir. Encycl.* vii. p. 246; an *Bojer Hort. Maurit.* p. 379?—*C. mollis*, *Poir. Encycl.* vii. p. 247.—*C. capitellatus*, *Rœm. et Sch. Syst.* ii. *Mant.* p. 101.

MADAGASCAR CENTRALIS, *Baron* n. 1510, *Gerrard*. SEYCHELLES, *Horne* n. 644. RODRIGUEZ, *Balfour*. COMORO, *Bojer, Bouton*.

22. *C. obtusiflorus*, *Vahl, Enum.* ii. p. 308; culmis in apice rhizomatis lignosi fasciculatis, basi bulboso-incrassatis, apice triquetris, monocephalis; involucri bracteis 2-5, recurvato-patulis, longiusculis, basi dilatatis; spiculis ovoideis, compressis, subturgidis, abbreviatis, 8-16-floris; nuce cum tertia parte glumæ æquilonga, triquetra, subsymmetrica. *Bœck. in Linnæa*, xxxv. p. 528, var. *a.*—*C. sphærocephalus* β . *leucocephalus*, *Kunth, Enum.* ii. p. 45.—*C. niveus* β . *polyphylla*, *Bœck. in Flora*, 1879, p. 550, non *Retz.*—*C. ambongensis*, *Bœck. in Flora*, xxxviii. p. 361.

MADAGASCAR, Ambongo, *Pervillé* n. 690, *Lyall* n. 92 &c. COMORO, *Bojer*.

Glumæ interdum in folia 1-2 uncias longa transeuntes. Var. β . *flavissima*, *Bœck.*, ab ins. Mascarenis nondum recepta est.—Species *C. niveo*, *Retz.* (Indico) maxime affinis. *C. niveus* differt præsertim spiculis oblongis, elongatis, magis compressis; glumis pluribus, arctius approximatis imbricatis.

23. *C. exilis*, *Willd.*; *Kunth, Enum.* ii. p. 50. Tenuis; radice fibrosa; culmis tenuibus, fasciculatis, basi incrassatis, conspicue vaginatis, apice monocephalis; involucri bracteis 2-3, $\frac{1}{2}$ -2-unc.; spiculis 3-7, fusco-brunneis; nuce obovoidea, triquetra, quam $\frac{1}{2}$ pars glumæ brevior. *Bœck. in Linnæa*, xxxv. p. 506.—*C. pannonicus*, var. β , *Poir. Encycl.* vii. p. 242.

MAURITIUS, La Pouce, *Gardner*; *Sieber* n. 9. MADAGASCAR, *Petit Thouars*, fide *Poiret*.

24. *C. stoloniferus*, *Retz. Obs.* iv. p. 10; rhizomate longe repente; culmis basi bulbosis; umbellis pauciradiatis, contractis; spiculis subteretibus, rubro-notatis; nuce obovoidea a dorso compressa. *Bœck. in Linnæa*, xxxv. p. 489 (syn. *C. tuberoso* et var. β . *excl.*).—*C. tuberosus*, *Bojer, Hort. Maurit.* p. 379; *Baker, Fl. Maurit.* p. 410, nec *Rottb.*

MAURITIUS, *Sieber* nn. 11, 28; *Ayres*.

25. *C. PERVILLEI*, *Bæck. in Linnæa*, xxxviii. p. 359. Rigidus; culmis fasciculatis, basi subincrassatis; foliis rigidis; umbella in capitulum specie simplex fere congestum; glumis subdistantibus, per totam fere latitudinem conspicue nervosis, in dorso convexis, vix carinatis.

N.O. de MADAGASCAR, *Pervillé* n. 645.

Sect. 5. HASPANI. Folia involucrique bracteæ sæpe breves. Spiculæ angustæ, densifloræ; rhachidiorum alæ angustæ, non solubiles. Nux minima, albida, sæpe minutissime scabrida.

26. *C. HASPAN*, *Linn. Sp. Pl.* p. 66, *partim, nec Linn. herb. propr.* Viridis aut pallidus; rhizomate repente; umbella pluriradiata, composita; spicis digitatis, 3–8-spiculosis. *Bæck. in Linnæa*, xxxv. p. 574, var. *a* excl.

MADAGASCAR, *Hilsenberg et Bojer*; Madagascar centralis, *Parker*.

27. *C. ÆQUALIS*, *Vahl, Enum.* ii. p. 320; umbellæ radiis plurimis, usque ad 50–80; spicis digitatis, 1–5-spiculosis; nuce parva, albida, minutissime scabrida. *Baker, Fl. Maurit.* p. 412, syn. *C. madagascariensi* excl.—*C. prolifer*, *Lam. Ill.* i. p. 147.—*C. papyroides*, *Poir. Encycl.* vii. p. 272.—*Papyrus æqualis*, *Bojer, Hort. Maurit.* p. 381.

MADAGASCAR, Ambongo, *Pervillé* n. 660, *Boivin*. MAURITIUS, *Sieber* n. 8, *Bojer, &c.*

28. *C. FLAVIDUS*, *Retz. Obs.* v. p. 13. Maturus flavidus aut nigrescens; radice fibrosa sæpissime annua; foliis cum culmo sæpe æquilongis; involucri foliis 2–3, culmum sæpe (interdum longe) superantibus; spiculis minimis, fasciculatis; stamine 1, raro 2; nuce minima obtuse obovoidea, contra rhachin compressa, dorso convexa vel vix carinata, albido marmorata, scabra, punctata vel lævi. *Roxb. Fl. Ind.* i. p. 200.—*C. tenuispicus*, *Steud. ! in Pl. Hohenack.* n. 1670, *Cyp.* p. 11.—*C. Haspan*, *Rottb. Descr. et Ic.* p. 36, t. 6. fig. 2; *Bæck. in Linnæa*, xxxv. p. 574, var. *a*; (*an Linn. partim?*).—*C. microcarpus*, *Bæck. in Reliq. Rutenb.* i. p. 37, *e descr.*; *Pluk. Alm.* t. 192. fig. 2.

INS. SEYCHELLES, *Horne* n. 634.—DISTRIB. India orientalis, Africa et Australia tropicales.

29. *C. DENUDATUS*, *Vahl, Enum.* ii. p. 324; *Bæck. in Linnæa*, xxxv. p. 576.

MADAGASCAR, fide *Bæck.* in *Reliq. Rutenb.* i. p. 37.—DISTRIB. Africa australis.

Sect. 6. ELEGANTES. Foliati, sæpe virides. Involucri bracteæ plures, longæ latæque foliaceæ. Umbella sæpius laxè composita, spicis ultimis digitatis paucispiculis. Rhachidiorum alæ angustæ, non solubiles. Glumæ laxius imbricatæ, ovatæ, obtusæ, multinervosæ, basi auriculatæ, secus rhachidium plus minus decurrentes, apice obtusæ breviter mucronatæ. Antheræ mucrone albido scabrido terminatæ. Nux cum $\frac{1}{2}$ – $\frac{3}{4}$ glumæ æquilonga, triquetra aut plane trigona.

30. *C. LONGIFOLIUS*, *Poir. Encycl.* vii. p. 270. Involucri bracteis sæpe $\frac{1}{3}$ unc. latis, multistriatis, etiamque 2–4 nervis validioribus percursis; spiculis 8–10-floris; glumis laxè imbricatis, basi auriculatis decurrentibus; nuce cum $\frac{2}{3}$ – $\frac{3}{4}$ glumæ æquilonga, oblonga. *Bojer, Hort. Maurit.* p. 380; *Baker, Fl. Maurit.* p. 413.

MADAGASCAR, *Petit-Thouars*, fide *Poiret*. MAURITIUS, *Bouton, Ayres, &c.*

C. eleganti, Linn., affinis; differt præcipue nuce angustiore.

31. *C. ELEGANS*, *Linn. Sp. Pl.* p. 68; involucri bracteis sæpe $\frac{1}{3}$ unc. latis, multistriatis, etiamque 2–4 nervis validioribus percursis; spiculis 10–22-floris, haud raro solitariis, pedicellatis, sæpius digitatis, nuce cum dodrante glumæ æquilonga, late ellipsoidea, utrinque angustata, acute triquetra. *Bæck. in Linnæa*, xxxv. p. 532. *C. nigro-viridis*, *Thwaites, Enum. Pl. Zeyl.* p. 344.

MADAGASCAR CENTRALIS, *Baron* n. 526, *Parker*. COMORO, *Johanna, Hildebrandt* n. 1739.—DISTRIB. Africa Occidentalis (ab Africa Orientali adhuc non recepta). India Orientalis cum Zeylania. China. America Tropicalis.

In exemplis, quam Mascarensibus tam Indicis, rhachidiorum alæ latæ hyalinæ conspicuæ videntur. Spiculæ pedicellatæ quasi spicæ 1-spiculosæ habendæ.

Sect. 7. ALTERNIFOLII. Involucri bracteæ plures, longæ. Umbella composita, spicis ultimis numerosis paucispiculis. Rhachidiorum alæ perangustæ, non solubiles. Glumæ imbricatæ, basi truncato-solubiles nec decurrentes. Antheræ mucronatæ,

vix albidæ. Nux cum dodrante glumæ æquilonga, triquetra aut plane trigona.

32. *C. ALTERNIFOLIUS*, *Linn. Mant.* p. 28; umbella imperfecta subsolute corymbosa, radiis remotiusculis, alternis; spicis 3-7-spiculosis, digitatis aut specie saltem spicatis, pallidioribus. *Bæck. in Linnæa*, xxxv. p. 568.

MADAGASCAR, fide *Kunth*. BOURBON, *Boivin*, fide *Bæckeler*.—
Exempla visa culta.

33. *C. BARONI*, *C. B. Clarke*, nov. sp.; umbella supradecomposita; spicis paucispiculosis, digitatis; spiculis abbreviatis 6-10-floris, fusco-castaneis; nuce ellipsoidea cum tribus quartis glumæ æquilonga.

MADAGASCAR CENTRALIS, *Baron* nn. 484, 695.

Culmus 15-30-unc. Folia plura 9-18 unc. lata. Involucri bracteæ plures, usque ad 9-unc., patulæ, latæ, striatæ. Umbella diam. 8 unc.; spicæ parvæ innumerosæ, sæpissime 3-4-spiculosæ. Spiculæ longæ $\frac{1}{8}$ - $\frac{1}{8}$ unc. Glumæ parvæ, minute apiculatæ, in dorso scabridæ virides, in lateribus rubro-castaneæ concoloriter striatæ, basi non decurrentes. Stamina 3; antheræ lineares subacutæ, rubescentes. Stylus brevis: rami 3, e gluma breviter exserti. Nux trigona, utrinque angustata.—*C. textili* affinis.

34. *C. BALFOURI*, *C. B. Clarke*, nov. sp.; umbella decomposita; spicis 1-paucispiculosis, digitatis; spiculis 8-14-floris, pallide brunneis; nuce anguste obovoidea cum duabus tertiis glumæ æquilonga.

BOURBON, *Balfour*.

Culmi plures, 20 unc. longi, apice triquetri. Folia plura, duabus tertiis æquilonga, vix $\frac{1}{5}$ unc. lata. Involucri bracteæ 3-5, longæ 6 unc., latæ vix $\frac{1}{4}$ unc. Umbella diam. 5 unc.; spiculæ haud raro solitariae, pedicellatæ. Glumæ arctius imbricatæ, ovatæ breviter acutæ, maturæ fere concoloriter brunnescentes; laterum pars estriata latiuscula. Stamina 3; antheræ vix apiculatæ. Stylus brevis; rami 3, e gluma breviter exserti. Nux trigona, apice obtusiuscula.—*C. Baroni* affinis.

Sect. 8. DIFFORMES. Annuï, foliati. Involucri bracteæ longæ. Umbella simplex vel composita; spicæ multispiculosæ. Spiculæ parvæ vel inter minores; glumæ obtusiusculæ; rhachidium vix alatum. Nux duas tertias partes glumæ superans.

* *Spiculæ laxiuscule spicatæ.*

35. *C. IRIA*, *Linn. Sp. Pl.* p. 67 (tab. Rheede cit. excl.) *et herb. propr.*; *Bojer, Hort. Maurit.* p. 381; *Bæck. in Linnæa*, xxxv.

p. 595.—*C. panicoides*, *Lam. Ill. i. p. 145.*—*C. microlepis*, *Baker, Fl. Maurit. p. 410, non Bœck.*

MADAGASCAR, fide *Bojer*. MAURITIUS, *Grey, Bouton, &c.* SEYCHELLES, *Horne.*—DISTRIB. In oryzetis gerontogeis.

In a species like *C. Iria* nearly all the European herbarium specimens are exceptionally large, gathered as fine examples; *C. microlepis*, *Baker*, is the form abundant in dibbled rice, where the seed of *C. Iria* germinates in August, and is hurried into flower by the approach of winter.

** *Spiculæ fasciculatæ.*

36. *C. DIFFORMIS*, *Linn. Amœn. Acad. iv. p. 302, Sp. Pl. p. 67;* nuce cum gluma fere æquilonga, æqualiter triquetra, ellipsoidea aut subovoidea, pallida. *Bojer, Hort. Maurit. p. 380; Baker, Fl. Maurit. p. 411.*

MADAGASCAR, *Pervillé* nn. 468, 482, *Hildebrandt* n. 3425, *Baron, &c.* MAURITIUS, *Sieber* n. 17, *Bojer, &c.*—DISTRIB. Per oryzeta veteris orbis.

37. *C. BAKERI*, *C. B. Clarke*; nuce duabus tertiis glumæ æquilonga, rotundato-trigona, apice conica subrostrata, nigra.—*C. Gardneri*, *Baker, Fl. Maurit. p. 413, non Nees.*

MAURITIUS, *Gardner.*

Species *C. pulcherrimo*, *Willd.*, proxima. Spiculæ longæ $\frac{1}{2}$ unc., latæ $\frac{1}{2}$ unc., admodum compressæ, pallide fuscæ. Glumæ late biseriatae approximatae, in sicco vix imbricatae, superne incurvatae, basi non decurrentes; laterum cellulae quadrato-hexagonae, laxae. Stamina 3, vix exserta; antherae lineari-oblongae, obtusae, rubescentes. Stylus nuce brevior; rami 3, breves.—*C. Gardneri*, *Nees*, species *Bœckelero* ignota, Americana, a *C. Bakeri* distat!

Sect. 9. DISTANTES. Majusculi, foliati. Umbella magna. Spiculæ lineares; rhachidiorum alae angustae, non solubiles; glumæ distantes, obtusiusculæ. Nux dimidium glumæ superans, angusta.

38. *C. DISTANS*, *Linn. f. Suppl. p. 103;* spiculis spicatis, sessilibus, florum expansionis tempore rectangulatim divaricatis; glumis oblongo-obovoideis; nuce obtusiuscule trigona.—*Bojer, Hort. Maurit. p. 380 partim?; Baker, Fl. Maurit. p. 411 partim; Bœck. in Linnæa, xxxv. p. 612 (syn. quibusdam ad C. nutantem amandatis).*—*C. elatus*, *Rottb. Descr. et Ic. p. 37, t. 10 (nec Linn., nec Papyrus elatus, Nees).*

MADAGASCAR, *Pervillé* n. 473, *Baron* n. 680. MAURITIUS, *Sieber* n. 13. BOURBON, *Balfour*. COMORO, *Hildebrandt* n. 1737.—In regione tropica totius fere orbis.

39. *C. NUTANS*, *Vahl*, *Enum.* ii. p. 363; radiis elongatis cum spicis (floris expansionis tempore) ascendentibus nutantibus; glumis ellipticis obtusis; nuce trigona in facie itneriore vix concava.—*Bœck.* in *Linnæa*, xxxv. p. 597.—*C. Jacquini*, *Schrad.*; *Fenzl* in *Denksch. Akad. Wissen.* 1854, p. 54, t. 1.—*C. distans* β . major, *Thwaites*, *Enum. Pl. Zeyl.* p. 432; *Bojer*, *Hort. Maurit.* p. 380; *Baker*, *Fl. Maurit.* p. 411 partim.

MADAGASCAR, *Boivin*. MAURITIUS, *Sieber* n. 18, *Bojer*, &c. RODRIGUEZ, *Balfour*. SEYCHELLES, *Horne* n. 216, *Bouton* 22.—DISTRIB. India orientalis.

Sect. 10. PROCERI. Robustiores, foliati. Umbella majuscula, composita. Spiculæ majusculæ, multi- (aut pluri-) floræ, rhachidiorum alæ angustæ, non solubiles. Nux cum $\frac{1}{3}$ – $\frac{1}{2}$ glumæ æquilonga trigona, a dorso interdum plus minus compressa.

40. *C. LATIFOLIUS*, *Poir. Encycl.* vii. p. 268; foliis latis, usque ad unciam haud raro latis; umbella 6–10 unc. diam., composita, spiculis densis; spicarum rhachi minute pilosa; spiculis 16–28-floris; glumis subovatis in margine superiore hyalinis. *Bojer*, *Hort. Maurit.* p. 380; *Baker*, *Fl. Maurit.* p. 413.—*C. scoparius*, *Poir. Encycl.* vii. p. 253?

MADAGASCAR, *Lyall*, *Parker*. MAURITIUS, *Sieber* n. 16, *Bojer*, &c.

Sect. 11. SOLUBILES. Spiculæ multifloræ, sæpius numerosæ; rhachidiorum alæ non solutæ. Nux trigona, subsymmetrica, non (aut obscurius) a dorso compressa, cum $\frac{1}{2}$ – $\frac{2}{3}$ glumæ sæpius æquilonga.—(Species perennes.)

* *Folia abbreviata aut subnulla.*

41. *C. ARTICULATUS*, *Linn. Sp. Pl.* p. 66. Subaphyllus; culmis in sicco plane nodosis; involucri bracteis brevissimis, 1 unc. raro superantibus. *Bojer*, *Hort. Maurit.* p. 378; *Baker*, *Fl. Maurit.* p. 412.—*C. niloticus*, *Forsk*; *Beauv. Fl. d'Oware*, p. 63, t. 97. fig. 2.

MADAGASCAR, *Gerrard*. SEYCHELLES, *Horne* n. 237. BOURBON,

Balfour. MAURITIUS, fide *Bojer*.—DISTRIB. In regionibus calidis totius fere orbis.

42. *C. CORYMBOSUS*, *Rottb. Descr. et Ic.* p. 42, t. 7. fig. 4. Aphyllus aut breviter foliatus; involucri bracteis brevibus vel cum umbella æquilongis; glumis florigeris imbricatis; styli ramis breviter exsertis. *Bæck. in Linnæa*, xxxvi. p. 277 partim, *nec Kunth*.—*C. diphyllus*, *Retz. Obs.* v. p. 11; *Bæck. in Linnæa*, xxxvi. p. 272.

INDIA ORIENTALIS; AUSTRALIA BOREALIS.

Var. β . *Pangorei*, *Rottb. Descr. et Ic.* p. 31, t. 7. fig. 3 (sp.). Spiculis 1 unc. longis, 18–36-floris.—*C. corymbosus*, forma macrostachya, *Bæck. in Linnæa*, xxxvi. p. 277.

NOSSIBÉ, *Boivin*.—DISTRIB. India orientalis.

C. tegetum, *Roxb.* (= *C. corymbosus*, *Kunth*, *Bæck.*, pro majore parte) differt glumis florigeris in sicco non imbricatis, stylis longe exsertis; in herb. Kewensi e Mauritio sub nomine "*C. textilis*, introduite de Pondicherry" receptus est.

43. *CYPERUS* (§ *EUCYPERUS*) *HETEROCLADUS*, *Baker*, n. sp.

C. foliis productis subnullis, caule robusto pedali triquetro lateribus excavatis, umbellæ radiis 6–8 sessilibus vel pedunculatis simplicibus vel furcatis, spicis densis oblongo-cylindricis, spiculis 20–40 et ultra subcylindricis ascendentibus 5–6-floris, glumis obovatis obtusis arcte imbricatis ferrugineis viridi carinatis margine pallidis, fructu triquetro, styli ramis 3 brevibus patulis.

Stems about a foot long, stout, acutely triquetrous, sheathed tightly at the base by several brown linear rudimentary leaves, one produced into a very short green linear blade. Umbels of 6–8 rays, bracteated by three linear leaves 2–3 inches long, some simple, sessile or shortly peduncled, two or three with a longer peduncle and bearing a pair of spikes. Spikes $\frac{1}{2}$ – $\frac{3}{4}$ in. long, consisting of very numerous dense sessile ascending spikelets. Spikelets $\frac{1}{8}$ in. long, obscurely flattened. Glumes obovate-oblong, obtuse, $\frac{1}{12}$ in. long, bright red-brown, with a pale border and a distinct green keel, each imbricated more than halfway over its next neighbour. Nut not seen mature.—Central Madagascar, *Baron 2120!* Allied to the European *C. longus*, L., receding towards § *Mariscus* by its few flowers and almost cylindrical spikelets.

** *Foliati*.

44. *C. ROTUNDUS*, *Linn. Sp. Pl.* p. 67, non *Linn. herb. propr.*;

spiculis breviter spicatis, suberectis, multifloris, compressis, nunquam lutescentibus; glumis per $\frac{1}{2}$ – $\frac{2}{3}$ latitudinis nervosis; styli ramis longius exsertis. *Bojer, Hort. Maurit.* p. 379; *Baker, Fl. Maurit.* p. 410.—*C. bicolor*, *Vahl, Enum.* ii. p. 340; *Bojer, Hort. Maurit.* p. 379.—*C. maritimus*, *Bojer, Hort. Maurit.* p. 378 (fide Baker loc. cit.), *non Poir.*

MADAGASCAR, *Hildebrandt* n. 3320. NOSSIBÉ, *Hildebrandt* n. 3355. MAURITIUS, *Sieber* n. 6 &c. BOURBON, *Balfour*. COMORO, *Johanna, Hildebrandt* n. 1736, *Blackburn*. SEYCHELLES, *Bouton* n. 23.—DISTRIB. In oryzetis fere totius orbis pestis.

45. *C. ESCULENTUS*, *Linn. Sp. Pl.* p. 67; spiculis spicatis, patulis, viridi-lutescentibus aut brunneis; glumis ovatis, obtusis, per totam fere latitudinem striatis. *Bæck. in Linnæa*, xxxvi. p. 287.—*C. maritimus*, *Bojer! herb. propr. partim.*

MAURITIUS, *Bojer*. COMORO, *Bouton*.—DISTRIB. In regionibus calidioribus totius fere orbis.

46. *C. TENUIFLORUS*, *Rottb. Descr. et Ic.* p. 30, t. 14. fig. 1; culmis elongatis; umbella composita, laxius divaricata; spiculis angustis, pallidioribus, floriferis, rectangulatim patulis; glumis remotioribus, imbricatis. *Roxb. Fl. Ind.* i. p. 199, et *Ic. ined.* t. 1109 in *herb. Kew.* (*nec Jacq., nec C. longus*, var. *tenuiflora*, *Bæck. in Linnæa*, xxxvi. p. 281).—*C. torosus*, *Vahl, Enum.* ii. p. 339.—*C. Roestelii*, *Kunth, Enum.* ii. p. 58.—*C. pertenuis*, *Bojer! Hort. Maurit.* p. 379, *non Roxb.*—*C. longus*, *Baker, Fl. Maurit.* p. 411, *non Linn.*—*C. rotundus*, var., *Benth. Fl. Austral.* vii. p. 279.—*Cyperus*, *Wall. List* n. 3329, A, L *partim.*

MAURITIUS, *Bojer, Horne, &c.* GALEGA, *Blackburn*.—DISTRIB. Socotra. India orientalis. Australia.

Culmus basi incrassatus lignescens; stolones elongati tenues. Spiculæ quam *C. rotundi* angustiores, sæpius pallescentes. Nux in exemplis Mascarensibus non visa, in exemplis Australiensibus et Soctrensi obtuse trigona, a nuce acute triquetra *C. rotundi* multo recedens.—Species *C. rotundo* proxima, a *C. longo* causa rhizomatis diversa.—*C. tenuiflorus*, *Jacq.*, a *C. longo* var. *badio* vix differt. *C. pertenuis*, *Roxb.*, est *C. scariosus*, R. Br.

Sect. 12. EXALTATI. Alti, foliati. Umbella magna. Spiculæ innumerosæ, anguste lanceolatae, compressæ, densifloræ. Stylus 3-fidus. Nux trigona, dimidio glumæ brevior.

47. *C. DIVES*, *Delile, Egypt*, v. t. 4 fig. 3; umbella composita,

spicis cylindricis, digitatis; spiculis densis, floriferis rectangulatis patulis, sæpius lutescentibus; glumis dense stipatis, late ovatis obtusis, interdum breviter mucronatis. *A. Rich. Fl. Abyss.* ii. p. 480.—*C. fastigiatus*, *Forsk. Æg.-Arab.* p. 14.—*C. alopecuroides*, var. *α*, *Bæck. in Linnæa*, xxxvi. p. 321; *Oliver in Trans. Linn. Soc.* xxix. p. 166, non *Rottb.*

MADAGASCAR, *Hildebrandt* n. 3426. NOSSIBÈ, *Boivin*. COMORO, *Hildebrandt* n. 1738.—DISTRIB. Africa borealis et centralis. Syria. India orientalis. Australia.

Species a *C. alopecuroide*, quam nuce trigona stylo trifido, tam structura spiculæ glumisque lateraliter compressis neque in dorso complanatis, longissime distans; sed forsàn cum *C. exaltato*, *Retz.*, melius jungenda. Ex exemplis Indicis huc (a me) relatis, alia cum exemplis Africanis exacte quadrant, alia, an varietates *C. exaltati*, *Retz.*, var. *altæ* (sp.) *Nees*, anne formæ *C. divitis* sint, nec mihi neque amicissimo *Baker* sat certum videtur. Exemplum Australiense (a *Bentham* sub *C. exaltato*, *Retz.*, ordinatum) cum exemplis Mascarensibus bene congruit.

48. *C. IMMENSUS*, *C. B. Clarke*, nov. sp.; umbella maxima, composita; spicis cylindricis densis; spiculis innumerosis, $\frac{2}{3}$ unc. longis, densifloris, undique rectangulatis divaricatis; nuce ellipsoidea, trigona, cum dimidio glumæ æquilonga.

N.O. de MADAGASCAR, *Pervillé* n. 483.

Culmus apice triqueter, $\frac{1}{4}$ unc. diam. Folia robusta, longa. Involucri bracteæ plures, usque ad 18 unc. longæ, $\frac{3}{4}$ unc. latæ, robustæ, crassæ. Umbella 2-3 ped. diam.; spicæ ultimæ pedunculatæ, solitariae vel digitatæ, longæ $2\frac{1}{2}$ unc. latæ $1\frac{1}{4}$ unc., 60-spiculosæ. Spiculæ 40-floræ, quam in aliis speciebus vicinis majores, compressæ, pallide luteo-brunnæ; rachidium vix alatum. Glumæ compressæ, ovatæ, acutatæ, submucronatæ, in dorso confluenti-1-3-nerviæ viridescens, in lateribus subnerviæ. Stamina 3, vix exserta; antheræ lineari-oblongæ, muticæ. Stylus brevis; rami 3, e gluma breviter exserti. Nux utrinque angustata, pallida.

Sect. 13. SPICATI. Spiculæ pauci- (sæpius 8-5-) floræ, spicatæ, divaricatæ, oblongo-lanceolatæ.—Majusculi, foliati, umbellis compositis.

49. *C. PENNATUS*, *Lam.*; *Poir. Encycl.* vii. p. 240. Spiculis laxiuscule spicatis, pallidis subrubescens; nuce ellipsoidea trigona utrinque angustata, quam dimidia pars glumæ subbreviore,

nigra reticulatim albo-velata. *Baker, Fl. Maurit.* p. 413; *Benth. Fl. Austral.* vii. p. 284.—*C. canescens*, *Vahl, Enum.* ii. 355; *Bæck. in Linnæa*, xxxvi. p. 340.

SEYCHELLES, *Horne* n. 219.—DISTRIB. India. Asia australi-orientalis. Australia tropica. Polynesia.

50. *C. LIGULARIS*, *Linn. Amæn. Acad.* v. p. 391, *Sp. Pl.* p. 70; spiculis dense congestis rufescentibus. *Bæck. in Linnæa*, xxxvi. p. 332.—*C. glandulosus*, *Rolfe!* in *Trimen's Journ. Bot.* n. s. ii. p. 362.—*Mariscus glandulosus*, *Bojer, Hort. Maurit.* p. 382.—*Sloane, Jamaica*, i. p. 36, t. 9.

GALEGA, *Bouton, Blackburn.*—DISTRIB. In oris Africæ, a Loango usque ad Senegambiam, frequens. Madera. America tropica. Australia, *fide* Bœckeler.

C. Gunnii, *Hook. f.*, floriger *C. ligularem* aliquando simulat; nux autem *C. Gunnii* elongato-oblonga est.

Sect. 14. LEPTOSTACHYI. Spiculæ pauci- (sæpius 8-4-) floræ, spicatae, divaricatae, lineares. Glumæ distantes, elongatae, adpressæ. Nux longiuscula, angusta.—Rhachidiorum genicula spongioso-incrassata. Nux inter alas rhachidii abscondita.

51. *C. FERAX*, *A. Rich. in Act. Soc. Hist. Nat. Paris*, i. p. 106. Spiculis in forma typica 8-4-floris, subflexuosis aut rarius rectis. *Bæck. in Linnæa*, xxxvi. p. 399; *Decaisne in Ann. Mus. d'Hist. Nat.* iii. p. 359 (errore typ. *ferox*).—*C. flexuosus*, *Vahl, Enum.* ii. p. 359; *Rottb. in h. propr.*—*C. phleoides*, *Nees; Steud. Cyp.* p. 62; *Seem. Fl. Viti*, p. 319.—*C. Prescottianus et C. multiceps*, *Hook. et Arn. Bot. Beechey Voy.* p. 100.—*C. strigosus*, *Hook. et Arn.* loc. cit. p. 99, non *Linn.*—*C. multibracteatus*, *Bæck.!* in *Flora* 1875, p. 107.—*C. pennatus*, *Bæck. in Linnæa*, xxxvi. p. 404, non *Lam.*—*C. luteus*, *Bæck.!* in *Linnæa*, xxxviii. p. 370 (cum pluribus aliis).

N.O. de MADAGASCAR, *Pervillé* nn. 451, 516.—DISTRIB. India orientalis (frequens). Malaya. Polynesia (frequens). America tropicalis. Terra Zambesica. Madera.

Exempla Mascarenica (*C. luteus*, Bœck.) cum *C. ferace* Americano typico optime congruunt. Exempla Indica (or.) et in insulis Pellew, Samoa &c. lecta omnino similia.—*C. odoratus*, *Vahl; Bæck. in Linnæa*, xxxvi. p. 407, non *Linn.*, paullo differt spiculis 14-21-floris, sed mihi varietas videtur.

Subgenus IV. *MARISCUS*. Stylus 3fidus. Nux trigona aut triquetra. Spiculæ 1-5-floræ, 1-2- (raro 3-)nuciferæ.—Habitus omnino subgeneris *Eucyperis* sectionis *Leptostachyæ*; rhachidium simile ei *Leptostachyæ*.

52. *C. UMBELLATUS*, *Benth. Fl. Hongk.* p. 386, non *Roxb.*; spicis pro maxima parte pedunculatis, cylindricis, densissime spiculosis; spiculis fructus tempore sæpe deflexis, compressis, 1-nuciferis; gluma fertili superiores superante aut subæquante. *Kyllinga umbellata*, *Rottb. Descr. et Ic.* p. 15, t. 4. fig. 2.—*Mariscus umbellatus*, *Vahl, Enum.* ii. p. 376; *Bojer, Hort. Maurit.* p. 382; *Baker, Fl. Maurit.* p. 415.

MAURITIUS, *Sieber n. 4, Bouton, &c.* MADAGASCAR, *Gerrard.*

Hæc planta est *C. ovularis*, *Bæck. in Linnæa*, xxxvi. p. 376, fide num. cit. et tab. *Rottb. cit.*; clarus autem *Bæckeler* a cæteris *Mariscis Gerontogeis* (in caractere subsectionis) distinguit, "spicis (simplicibus) suborbiculatis," quæ verba figuræ *Rottboellii* jungere nequivi.—*C. ovularis*, *Torrey (cf. Benth. Fl. Austral.* vii. p. 290 in notâ) longius distat.

Var. *panicea*, *Rottb. Descr. et Ic.* p. 15, t. 4. fig. 1 (sp.); spicis pro maxima parte sessilibus minus densispiculosis; spiculis fructus tempore patulis aut interdum subadscendentibus, 1-nuciferis.—*C. paniceus*, *Bæck. in Linnæa*, xxxvi. p. 380.

SEYCHELLES, *Delisle; Horne n. 639.*

Var. *cylindrostachys*, *Bæck. in Linnæa*, xxxvi. p. 383 (sp.); spicis pedunculatis; spiculis majusculis sæpius binuciferis; gluma fertili inferiore quam superior multo brevior.

NOSSIBÉ, *Boivin. N.O. de MADAGASCAR, Pervillé n. 501.*
MAURITIUS, *Ayres.*

Involuceri bracteæ 6, longæ 5 unc., latæ $\frac{1}{4}$ unc. Umbellæ radii 12 usque ad 3 unc. longæ. Spicæ longæ 1 unc., latæ $\frac{1}{3}$ unc. Spiculæ iis *Eucyperis* subsimiles.

Species Mascarenicæ in herb. Kew. non visæ.

53. *C. RIGIDUS*, *Vahl, Enum.* ii. p. 309; cf. *Bæck. in Linnæa*, xxxv. p. 540.

54. *C. BADIUS*, *Bæck. in Linnæa*, xxxvi. p. 375 (*Kunth, Enum.* ii. p. 123, *Mariscus*).—E descr., est *C. umbellati*, *Benth., forma.*

55. *C. NUDICAULIS*, *Poir. Encycl.* vii. p. 240; *Bojer, Hort. Maurit.* p. 378.—*Anosporum nudicaule*, *Bæck. in Linnæa*, xxxv. p. 411.

HELEOCHARIS (§ SCIRPIDIUM) BARONI, n. sp.

Dense cæspitosa, caulibus teretibus haud septatis, spica cylindrica sursum attenuata acuta, glumis basalibus ovato-oblongis obtusis margine late scariosis, glumis floriferis oblongo-lanceolatis obtusis pallide viridibus dorso distincte bicarinatis, setis hypogynis 5-6 hispidis, styli ramis 2-3 hispidulis, staminibus 2-3.

Stems densely cæspitose, erect, pale green, terete, $1\frac{1}{2}$ -2 ft. long, $\frac{1}{12}$ in. in diam., continuous inside, the tight-clasping sheaths truncate or oblique at the top. Spikes solitary, erect, cylindrical, $\frac{3}{4}$ -1 in. long, $\frac{1}{12}$ in. in diam., tapering to an acute point. Lowest glumes small, ovate-oblong, obtuse, with a green centre of firm texture and a broad scarioso margin, in some of the specimens produced into linear-subulate leaves 1-2 in. long. Flowering glumes oblong-lanceolate, $\frac{1}{8}$ in. long, pale green, moderately firm in texture, with a two-ribbed distinct green keel. Hypogynous setæ unequal, retrorsely hispid. Nut only seen immature.—Central Madagascar, *Baron* 2076! A near ally of the common European *H. palustris*, R. Br.

SCIRPUS (§ ISOLEPIS) LYALLII, n. sp.

Perennis, caule tereti sesquipedali, foliis propriis nullis, vaginis basalibus apice obliquis, umbellis 3-8-radiatis folio rigido parvo lineari bracteatis, glomerulis spicularum centrali sessili, reliquis pedunculatis, spiculis multifloris cylindricis, glumis oblongis acutis arcte imbricatis membranaceis castaneis, setis hypogynis nullis, staminibus 3, stylis 3, fructu globoso-triquetro nitido.

Stems $1\frac{1}{2}$ ft. long, erect from a rhizome, slender, terete, with no proper leaves, but a couple of tight-clasping sheaths, castaneous downwards, with a rigid linear point adpressed to the stem. Inflorescence an umbel of few or many rays, bracteated by a rigid erect linear leaf $\frac{1}{2}$ -1 in. long; a central globose cluster of 12-20 spikelets sessile, the others peduncled, consisting of fewer spikelets, sometimes only two or three; peduncles not more than 1-2 in. long. Spikelets $\frac{1}{4}$ in. long, cylindrical, tapering to a point. Glumes membranous, reddish-brown, oblong-navicular, acute, $\frac{1}{8}$ in. long, with a green edge and distinct raised 1-nerved keel. Styles 3, long, protruded beyond the tip of the glumes. Nut drab, glossy, $\frac{1}{2}$ lin. long and broad.—Central Madagascar, *Lyall* 359! *Baron*! Habit of *S. lacustris*, but destitute of hypogynous bristles.

SCIRPUS (§ ISOLEPIS) MULTICOSTATUS, n. sp.

Dense cæspitosus aphyllus, vaginis brevibus glabris apice truncatis, caule gracili subtereti semipedali vel pedali, spiculis multis parvis oblongis in glomerulum globosum terminalem folio parvo lanceolato bracteatum dispositis, glumis membranaceis oblongo-navicularibus obtusis vel subacutis castaneis arcte imbricatis, setis hypogynis nullis, stylis 3, fructu pallido glabro globoso-triquetro verticaliter multicostato.

A leafless perennial, with slender densely tufted erect stems $\frac{1}{2}$ –1 ft. long, with a single short tight-clasping castaneous sheath with a truncate tip. Inflorescence a single globose terminal head $\frac{1}{4}$ – $\frac{1}{3}$ in. in diam., consisting of 12–20 congested sessile spikelets, bracteated by a rigid lanceolate leaf about as long as itself. Spikelets oblong, $\frac{1}{2}$ in. long. Glumes oblong-navicular, $\frac{1}{2}$ line long, membranous, dark chestnut-brown, with a green margin, the lower obtuse, the upper acute. Styles 3, protruded beyond the tip of the glumes. Nut pale, glabrous, with several vertical ribs down each of the three faces.—Central Madagascar, *Baron* 2043! Habit of the St.-Helenan *I. Lichtensteiniana*, Kunth.

SCIRPUS (§ ONCOSTYLIS) TRICHOBASIS, n. sp.

Aphyllus, dense cæspitosus, vaginis brevibus brunneis arachnoideis, caule gracillimo tereti, umbellæ radiis 5–6 sæpissime simplicibus folio parvo bracteatis, spiculis oblongo-lanceolatis centrali sessili reliquis pedunculatis, glumis oblongis brunneis arcte imbricatis dorso trinervatis, setis hypogynis nullis, fructu triquetro castaneo, styli ramis tribus.

A densely tufted perennial, with very slender erect wiry stems $\frac{1}{2}$ –1 ft. long, clasped tightly at the base by short brown conspicuously pilose sheaths. Umbel terminal, bracteated only by a minute rigid linear leaf, the central spikelet sessile, the others shortly peduncled, usually one, never more than two to a peduncle. Spikelets oblong, acute, $\frac{1}{6}$ in. long; glumes oblong, $\frac{1}{8}$ in. long, membranous, castaneous, glabrous, with a distinct 3-nerved keel, the lowest obtuse, the others acute. Styles 3, protruded beyond the top of the glume. Nut triquetrous, castaneous, polished, finely granulated.—Central Madagascar, *Baron* 979! This has entirely the habit of *Fimbristylis*, and is nearly allied to *S. capillaris*, L.

CAREX EMIRNENSIS, n. sp., and C. SPHÆROGYNA, n. sp.

These two new species will be figured and described shortly in the 'Journal of Botany.' The first is nearly allied to *C. divisa* and *C. disticha*, the latter to *C. ampullacea*. Both were found by

Mr. Baron on the mountains of the province of Imerina. The former is his 2028 and 2156, and the latter his 2041. [*Vide op. cit.* (1883), pp. 129, 130, t. 238.]

STENOTAPHRUM OOSTACHYUM, n. sp.

Perenne, glabrum, dense cæspitosum, vaginis laxis complanatis, folio parvo lanceolato, spicis parvis oblongis, rhachi utrinque late applanata, spiculis 2-3-jugis, gluma exteriori minuta sterili, interiori oblonga acuta flori æquilonga.

Stems densely intermatted, decumbent and rooting from the nodes of the lower part, the ascending flowering branches not more than 2-3 in. long. Sheaths of the stems $\frac{1}{2}$ - $\frac{3}{4}$ in. long, loose, broad, flattened, ciliated at the margin; lanceolate free blade $\frac{1}{2}$ -1 in. long, $\frac{1}{8}$ - $\frac{1}{6}$ in. broad. Peduncle thickened below the solitary oblong spike, which is not more than $\frac{1}{4}$ - $\frac{1}{3}$ in. long, with a rhachis flattened on both sides to a diameter of $\frac{1}{8}$ inch, with 2-3 spikelets on each side inserted in a deep groove. Spikelets erectopatent, $\frac{1}{2}$ in. long; the outer, sterile glume very minute; the inner as long as the flowering glume, which is oblong, subacute, acutely keeled, without any other ribs.—Central Madagascar, *Baron 655!* A curious little plant, nearly allied to the common cosmopolitan *S. complanatum*, Schrank.

STENOTAPHRUM UNILATERALE, n. sp.

Perenne, glabrum, dense cæspitosum, caule florifero elongato, vaginis laxis complanatis ciliatis, folio lineari, spica elongata cylindrica rhachi unilaterali applanata, spiculis geminis una sessili, altera pedicellata, glumis exteriori minuta emarginata sterili, interiori oblonga acuta flori æquilonga.

Stems densely intermatted, trailing at the base and rooting from several nodes, the ascending flowering branches a foot long. Sheaths of the stem $1\frac{1}{2}$ -2 in. long, loose, flattened, densely ciliated on the edge; blade linear, 2-3 in. long. Stems ending in a single compound spike about 3 in. long, with a rhachis flattened on one side of the flowers only to a breadth of a line, the spikelets in laxly disposed pairs along a slender flexuose axis, the inner spikelet of each pair sessile, the outer with a short pedicel, which, however, is adnate to the flattened 1-sided rhachis. Spikelets oblong, acute, 2-flowered, $\frac{1}{6}$ in. long; the outer, sterile glume very short, distinctly emarginate; the inner similar in shape, size, and texture to the flowering glume.—Central Madagascar, *Baron 1069!* A very curious and anomalous species.

ANDROPOGON (§ GYMNANDROPOGON) TRICHOZYGUS, n. sp.

Perennis, dense cæspitosus, caulibus strictis elongatis, foliis paucis elongatis rigidulis lineari-setaceis, paniculæ ramis 2-3 subdigitatis elongatis pilosis, spiculis geminis basi pilorum verticillo præditis, una sessili aristata, altera sterili pedicellata haud aristata, glumis sterilibus lanceolatis rigidulis margine sursum denticulatis.

A densely tufted perennial, with stiffly erect slender glabrous stems 2-3 ft. long, bearing several leaves with long close sheaths and a long narrow linear strongly ribbed almost triquetrous glabrous blade. Panicle of two or three contiguous ascending branches 2-3 in. long; spikelets in pairs with a ring of hairs at the base, one fertile, sessile, with a geniculate awn $\frac{1}{4}$ in. long, the other pedicellate, sterile and awnless. Outer glumes coriaceous in texture, lanceolate-navicular, glabrous, purplish, $\frac{1}{6}$ in. long, not distinctly ribbed except the keel, the margins distinctly denticulate upwards.—Central Madagascar, *Baron* 1807! Allied to the Abyssinian *A. brachyatherum*, Hochst., and Tropical-African *A. Mannii*, Hook. fil.

STIPA MADAGASCARIENSIS, n. sp.

Perennis, dense cæspitosa, glabra, foliis elongatis lineari-setaceis, paniculæ laxissimæ ramis capillaribus ascendentibus, spiculis paucis sessilibus, glumis sterilibus lanceolatis quam flos brevioribus pilis hispidis ascendentibus basi bulbosis instructis, gluma florifera glabra acuminata, palea arista sesquipollicari prædita.

A dense cæspitose perennial, with stems about a foot long. Leaves setaceous, glabrous, moderately firm in texture, the lower ones with a lamina about half a foot long; stem-leaves 2-3, the upper with a tight sheath 3-4 in. long, longer than its lamina. Panicle erect, very lax, 3-4 in. long, the capillary ascending branches bearing few spikelets each, the lateral ones sessile. Sterile glumes brownish, lanceolate-acuminate, clothed with two rows of ascending bristly whitish hairs with a black bulbous base, $\frac{1}{4}$ - $\frac{1}{3}$ in. long. Flowering glume lanceolate, acuminate, glabrous, $\frac{1}{3}$ in. long. Pale much smaller, produced into an awn $1\frac{1}{2}$ in. long, bent at the middle and twisted in the lower half.—Central Madagascar, *Baron* 2022! Allied to *S. Neesiana*, Trin., and *S. eminentis*, Cav. Adds this well-known and widely spread genus to the flora of the island.

LOPHATHERUM GEMINATUM, n. sp.

L. caule gracillimo elongato ramoso, vaginis elongatis margine dense

ciliatis, foliis linearibus patulis glabris, paniculæ ramis distantibus erecto-patentibus, spiculis patulis sæpissime geminis, una sessili, altera pedicellata.

A perennial, with slender erect glabrous stems about 3 feet long, branched low down. Sheaths 2–3 in. long, densely ciliated on the edges towards the top; blade acuminate, moderately firm in texture, 4–6 in. long, $\frac{1}{4}$ – $\frac{1}{2}$ in. broad, glabrous both on the surfaces and margin. Panicles several to a stem, terminal and from the axils of the leaves, reaching a foot in length, with distant erecto-patent branches, the lower 2–3 in. long. Spikelets usually in pairs, spreading, lanceolate, glabrous, $\frac{1}{8}$ in. long, one sessile, the other shortly pedicellate. Glumes lanceolate, acute, glabrous, not aristate, the two outer about half as long as the spikelet, 5-nerved on the back.—Central Madagascar, *Baron* 1061! Two species of this genus are already known, which are confined to the Himalayas, China, Japan, and the Malay archipelago.

BROMUS DISSITIFLORUS, n. sp.

Perennis, glaber, caule elongato, foliis paucis elongatis anguste linearibus, paniculæ laxissimæ ramulis paucis ascendentibus, spiculis paucis pedicellatis 7–8-floris, glumis sterilibus parvis lanceolatis, floribus segregatis, gluma florifera lanceolata 5-nervata breviter aristata.

A perennial, glabrous in all its parts, with slender erect stems 2–3 ft. long. Basal leaves several, with a linear setaceous convolute lamina reaching a foot in length. Stem-leaves about four, with tight sheaths 2–3 in. long and a linear blade sometimes half a foot long. Panicle very lax, nearly a foot long, with few distant solitary ascending branches, bearing each 2–4 spikelets, the side ones on ascending pedicels $\frac{1}{2}$ – $\frac{3}{4}$ in. long. Spikelets $\frac{3}{4}$ in. long; sterile glumes lanceolate, unequal, $\frac{1}{4}$ – $\frac{1}{8}$ in. long; flowers erecto-patent, distinctly separated from each other on the slender glabrous axis; flowering glume lanceolate-navicular, $\frac{1}{3}$ in. long, green, glabrous, obscurely 5-ribbed, narrowed gradually into a very short terminal awn.—Central Madagascar, *Baron* 2092! Allied to *B. pectinatus*, Thunb., and *B. scabridus*, Hook. fil., and amongst European species to *B. sterilis*.

BROMUS ARRHENATHEROIDES, n. sp.

Perennis, glaber, caule elongato, foliis paucis elongatis lineari-setaceis, paniculæ laxæ ramis multis ascendentibus, spiculis paucifloris lateralibus sessilibus vel breviter pedicellatis, glumis sterilibus magnis lanceolatis tri-

nervatis, floribus laxis, gluma florifera lanceolata 7-nervata profunde bifida arista elongata geniculata instructa.

An erect perennial, with the habit of *Arrhenatherum avenaceum*. Basal leaves with a slender setaceous lamina a foot or more long. Stems 2 feet long, with about three leaves, each with a long close sheath and a long narrow linear free blade. Panicle half a foot long, with numerous short ascending capillary branches, the lower with five or six spikelets. Spikelets $\frac{1}{3}$ in. long, exclusive of the awns; empty glumes lanceolate, acute, 3-nerved, $\frac{1}{6}$ – $\frac{1}{4}$ in. long; rhachis pilose; flowers not more than 3 fertile, with a distinctly 7-nerved deeply bifid flowering glume with a patulous geniculate awn longer than itself springing from the notch.—Central Madagascar, *Baron* 2081!

BROMUS AVENOIDES, n. sp.

Perennis, glaber, caule elongato, foliis paucis elongatis anguste linearibus, paniculae laxissimae ramulis paucis ascendentibus, spiculis 5–6-floris pedicellatis, glumis sterilibus magnis lanceolatis, floribus laxis, gluma florifera lanceolata 7-nervata profunde bifida arista geniculata elongata instructa.

A tufted perennial, glabrous in all its parts, with slender erect glabrous stems 2–3 ft. long. Basal leaves with a setaceous lamina a foot long; stem-leaves about three, with long close sheaths and a long free narrow linear lamina. Panicle very lax, half a foot long, with few slender ascending capillary branches, the lower 2–3-nate, bearing three or four spikelets, all distinctly stalked. Spikelets $\frac{5}{8}$ – $\frac{3}{4}$ in. long exclusive of the awns; empty glumes lanceolate, acute, 3-nerved, $\frac{1}{4}$ – $\frac{1}{3}$ in. long; flowers usually five or six; rhachis slender, densely pilose; flowering glume lanceolate-navicular, deeply bifid, glabrous, distinctly 7-nerved, $\frac{1}{3}$ in. long, bearing an erecto-patent or spreading geniculate awn above $\frac{1}{2}$ in. long from the bottom of the notch.—Central Madagascar, *Baron* 2034! Habit of the European *B. patulus*, Mert. & Koch. This species and the last are remarkable in this large genus by their deeply bifid flowering glumes.

NASTUS BORBONICUS, *Gmel.*, var. *EMIRNENSIS*.

This Bamboo, which is common in the forests of Central Madagascar, and of which Dr. Parker has procured fine specimens in flower, differs only from the type of the species (which is common in the uplands of the interior of Bourbon) by its more slender habit, narrower leaves, and smaller spikelets. The Bourbon

plant is figured in Bory's 'Voyage,' tab. 12, under the name of *Bambusa alpina*.

FILICES.

CYATHEA SEGREGATA, n. sp.

C. frondibus amplis tripinnatis utrinque glabris facie viridibus dorso glaucis, rachidibus stramineis inermibus, pinnis oblongo-lanceolatis, pinnulis sessilibus lanceolatis, segmentis tertiariis lanceolatis segregatis, fertilibus crenatis, venulis 8-10-jugis profunde furcatis, soris costalibus, involucre membranaceo, ore truncato.

Fronde ample, tripinnate, moderately firm in texture, green on the upper surface, glaucous beneath, the rhachises quite without either prickles or paleæ. Pinnæ about a foot long in the specimens. Pinnules contiguous, sessile, lanceolate, 2-2½ in. long, $\frac{5}{8}$ - $\frac{3}{4}$ in. broad, cut down to the rhachis into lanceolate tertiary segments $\frac{1}{2}$ in. broad, with a distinct space between each equal in breadth to a segment, the fertile portion distinctly toothed. Veinlets in 8-10 pairs in the lower segments, distinct, deeply forked. Sori globose, confined to the lower part of the segments, filling up the whole space between midrib and margin. Involucre glabrous, membranous, truncate. Receptacle glabrous.—Central Madagascar, *Baron* 997!

CYATHEA POLYPHLEBIA, n. sp.

C. frondibus amplis tripinnatis utrinque viridibus glabris, rachidibus brunneolis inermibus, pinnis oblongo-lanceolatis, pinnulis sessilibus lanceolatis, segmentis tertiariis lineari-oblongis obtusis obscure crenulatis, venulis 10-12-jugis profunde furcatis, soris costalibus, involucre membranaceo, ore truncato.

Fronde ample, tripinnate, moderately firm in texture, green and glabrous on both surfaces; rhachises brownish, without any prickles or paleæ. Pinnæ 1½ ft. long, 5-6 in. broad. Pinnules crowded, sessile, lanceolate, $\frac{5}{8}$ - $\frac{3}{4}$ in. broad, cut down to the rhachis into crowded obscurely toothed tertiary segments $\frac{1}{2}$ in. broad. Veins crowded, distinct, deeply forked. Sori confined to the lower half of the tertiary segments, filling up the whole space between midrib and margin. Involucre cup-shaped, hemispherical, membranous, glabrous, truncate. Receptacle glabrous.—Central Madagascar, *Baron* 440! Both this and the last species are nearly allied to *C. excelsa*, Sw., and *C. Hildebrandtii*, Kuhn.

SALVINIA HASTATA, Desv. in Ann. Soc. Linn. Par. vi. 177?

Stems wide-creeping, sending down abundant tufts of root-

fibres from the nodes, clothed with small blackish linear crisped membranous lanceolate paleæ. Petiole under a line long. Fronds cordate-ovate, flat, membranous, $\frac{1}{2}$ – $\frac{3}{4}$ in. long, $\frac{3}{8}$ – $\frac{1}{2}$ in. broad, pale green above and rugose with close raised points, dark green beneath, and matted with dense short soft hairs, the apex conspicuously emarginate with two semiorbicular lobes, the basal lobes shallow and broadly rounded, and a distinct midrib running from the top of the petiole to the base of the apical sinus. Conceptacles not seen.—In fresh water near the east coast, *Baron* 1569!

On the Joint and Separate Work of the Authors of Bentham and Hooker's 'Genera Plantarum.' By G. BENTHAM, F.R.S.

[Read April 19, 1883.]

SINCE the completion of our 'Genera Plantarum' we have been asked to distinguish which are the parts which we severally took in it, and to publish a list of the Orders which each of us had worked up. We wish, however, that the whole may be considered as the joint production of both of us. It is indeed the only joint work in which I have ever been engaged. I very early saw the diminished responsibility and other inconveniences of partnership botany, and during my long working-time always refused entering into any such without the special conditions offered on the present occasion. It is true that in some catalogues I appear as joint author of botanical papers or work, but always by some error. Some of *Ærsted's* papers on the botany of Central America have been quoted, and perhaps entitled, as by Bentham and *Ærsted*, when they are really *Ærsted's*, though he incorporated in them the determinations and descriptions of his specimens with which I had supplied him. Apart from these descriptions, the papers are in Danish, a language with which I was once familiar as to reading, but in which I never wrote. Then, again, the 'Flora Australiensis' is sometimes quoted as the joint work of Bentham and Mueller, when it is entirely and exclusively mine, with the assistance indeed, but not the "cooperation," of Baron v. Mueller, this assistance being of precisely the same description as that which I derived from the herbarium and detailed MS. descriptions of Robert Brown, from the herbarium